



3 1761 11701883 8



Digitized by the Internet Archive
in 2023 with funding from
University of Toronto

dup
done

Canada Royal Commission on
employment of firemen on
diesel locomotives in freight
and yard service on the
Canadian Pacific railway

Proceedings

1957, no 25-27

ROYAL COMMISSION ON EMPLOYMENT OF FIREMEN
ON DIESEL LOCOMOTIVES IN FREIGHT AND YARD
SERVICE ON THE CANADIAN PACIFIC RAILWAY

14
25-27

PROCEEDINGS



DATE: April 9, 1957

PLACE: Ottawa, Ont.

PAGES: 3261 - 3426

VOLUME: 25

E. L. FEATHERSTON
SHORTHAND REPORTER
241 MANOR AVENUE
ROCKCLIFFE PARK
OTTAWA, CANADA

Chairman

I N D E X

WITNESSES

WOODLAND, B.B.		
Exam. by Mr. Sinclair	....	3263
Exam. by Mr. Lewis	....	3351
YOUNGS, J.J.		
Exam. by Mr. Lewis	....	3414

EXHIBITS

No. 129	- Temporary form routine duties of firemen on Alco locomotives	....	3281
129A	- Revised temporary form - routine duties of firemen on Alco locomotives..		3281
130	- MP-604 - Hourly inspection in engineroom of Alco/MLW road units	....	3284
131	- MP-74 - Engineman's locomotive inspection report	....	3288
132	- Trip report of witness made February 1957, consisting of eight sheets	....	3344
133	- Interstate Commerce Commission report, 1951..		3358
134	- Interstate Commerce Commission report, 1955..		3358
135	- Interstate Commerce Commission report, 1956..		3358
136	- Report of Board of Transport Commissioners for Canada	....	3363
137	- Form 104, Raymond Albert Carman	....	3375

ROYAL COMMISSION ON EMPLOYMENT OF
FIREMEN ON DIESEL LOCOMOTIVES IN
FREIGHT AND YARD SERVICE ON THE
CANADIAN PACIFIC RAILWAY

Proceedings of public
hearing held at Ottawa,
Ontario, Tuesday, April 9,
1957

PRESENT:

Hon. R.L. Kellock,	Chairman
Hon. C.C. McLaurin,	Member
Hon. Jean Martineau,	Member
Douglas M. Fraser,	Secretary
A.R. Winship,	Asst. Secretary

APPEARANCES:

D.W. Mundell, Q.C., C.J.A. Hughes, Q.C.,	Representing the Commission
I.D. Sinclair, Allan Findlay,	Representing the Canadian Pacific Railway Company
David Lewis,	Representing the Brotherhood of Locomotive Firemen and Enginemen

Tuesday,
April 9, 1957.

25th DAY

MORNING SESSION

---The Commission resumed at 10.00 a.m.

1. The first part of the document is a list of names and addresses of the members of the committee.

2. The second part of the document is a list of the names and addresses of the members of the committee who have been elected to the office of the committee.

3. The third part of the document is a list of the names and addresses of the members of the committee who have been elected to the office of the committee.

4. The fourth part of the document is a list of the names and addresses of the members of the committee who have been elected to the office of the committee.

5. The fifth part of the document is a list of the names and addresses of the members of the committee who have been elected to the office of the committee.

6. The sixth part of the document is a list of the names and addresses of the members of the committee who have been elected to the office of the committee.

7. The seventh part of the document is a list of the names and addresses of the members of the committee who have been elected to the office of the committee.

MR. B.B. WOODLAND, recalled.

EXAMINED BY MR. SINCLAIR:

Q Mr. Woodland, yesterday you had explained your maintenance program for road diesels-- if I may recapitulate -- which involved trip inspections, turn-around inspections, and mileage inspections. The trip inspection being at the conclusion of the trip for the unit; the turn-around being when the unit was being turned around and came off the shop track, and the mileage inspection being done at one of four points on the system; is that correct?

A That is correct.

Q Now, for yard diesel power, what is the maintenance program?

A On yard diesel-electric locomotives, they are maintained on a time rather than a mileage basis. The locomotive is held for inspection once each month and this inspection is undertaken in a period usually of about eight hours. These inspections are carried out each month and at the end of two years' service the locomotive is sent ^{to} ~~in~~ the shop where engine reconditioning, parts replacement, etc., will be undertaken.

Q As you have explained yesterday, the Canadian Pacific got its road diesel power in 1949 and 1950. We have had

evidence that its yard diesel power was first received around, I think you said, 1943?

A That is correct.

Q Based on the experience which the company has had since 1943 with yard diesels, what is the result of the engines becoming older on your maintenance and availability of these yard diesels for service?

A There have been no effects of age. The availability of yard diesel power has remained at about 98 per cent of total time. The program that has been established seems to be maintaining the equipment in sufficient condition to ensure reliability and it is quite unusual to have a diesel yard switcher held for inspection or repair at any other time than the eight hours assigned per month.

Q Have you or have you not made any special tests on the wiring to see how the insulation is standing up on the diesel wiring over a period of years?

A We had originally expected --

MR. LEWIS: Yard or road?

MR. SINCLAIR: I am going to take yard first and then road.

THE WITNESS: We had originally expected that the locomotives would have to be completely rewired at some period between

ten and twelve years. We also thought that we might run into a high incidence of insulation failure on the traction motor windings. We have made extensive tests both on the wiring and on the traction motors and we find that there is nothing that can be done, the insulation is still in very good condition and the motors have required no attention other than the mechanical checks of the bearings and such which is given periodically at the main shops.

BY MR. SINCLAIR:

Q You mean since 1943?

A Since 1943.

Q On road power, what kind of checks have you made on your electrical wiring or the electrical circuits on your traction motors?

A We necessarily make an insulation check of road power at each inspection, both the control circuit wiring and the power wiring. We have found that this has stood up very well. We do not anticipate having to renew the wiring on these locomotives anywhere in the immediate future.

Q And that would be how many years have you used the wiring; how old would the wiring circuit be?

A The oldest wiring circuits are of course just eight years.

Q Have you checked some that are eight years old?

A Yes. These are periodically checked.

Q Yesterday you mentioned that the application of the diesel engine in its present basic form was completed around 1938 on the railways in North America; is that correct?

A That was to provide a universal locomotive for freight and passenger service, yes.

Q Now, what developments if any have there been since 1938 up to 1949, when the Canadian Pacific first started to receive its road diesel power?

A The first diesel electric locomotives that were built carried over some of the ideas of power plant design.

Q You mean stationary power plant?

A Stationary power plant design and the engines were not specifically designed in all instances for motive power. Since 1938 up to the period of 1949 there have been decided advances made which have increased the locomotive's reliability.

You could divide them as the provision of automatic control; instead

of manual control you have automatic operation. You could list them under design and improvements of material; improvements that have been made in both electrical and mechanical equipment. You would also have to give a good share of the credit to the developments in lubricating oil and lubricating oil practices.

Q. You have mentioned three headings. Taking first the change from manual to automatic; then, second, the changes in design, both electrical and mechanical; and, third, the lubrication advances and practices in regard to lubrication.

Take the first one first. Would you give the Commission some examples of the changes which have taken place in this period between 1938 and 1949 with regard to the change-over from manual to automatic appliances on diesel locomotives?

A Well, probably the foremost was the provision of automatic temperature control. Previously it had been necessary for someone to go back into the unit and closely check the water temperatures, the shutters and in some instances cut in a fan or cut out a fan in order to keep the water within the operating range.

Q What changes were made? You have listed the shutters and the cooling fan. Both were manually operated, is that correct?

A Both were manually operated to control the water temperature.

Q And they became?

A They became automatically operated through the use of electrical control circuits and pneumatic operating devices.

Q Have you any other example?

A The use of belts was quite prevalent, flat belts, which were subject to breakage. Those were used for the traction motor blowers. It was essential that somebody carefully watch those because if a belt broke on a traction motor blower the motor itself would overheat. This was overcome by the use of an induction motor direct connected to the fan and automatically controlled, as I have told you, on two types of motive power.

Q Those are two examples; would you have one more for the Commission, Mr. Woodland? What about dynamic braking? Was there any change in the dynamic braking?

A Well, when the dynamic braking was first applied, ^{it} was rather undependable and to ensure that the cooling fan to the grid was operating it was necessary for someone

to go back and check before the dynamic braking was used, check to see that this cooling fan was operative.

Q Was there or was there not also a necessity to hand prime the pump back in the engineroom?

A That was a carry-over from power plant practice, stationary power plant practice. On some locomotives it was necessary to prime the fuel system.

Q By hand?

A By hand when the engine was started.

Q How was that changed?

A Today we have a motor-driven pump which pressurizes the system as soon as the pump is turned on.

Q So much for the examples of the changes from manual to automatic. Would you have some examples of the changes in material and design?

A Taking the engine first, the biggest advances were in the use of much improved alloy metals in the structural part of the engine; the development of welding techniques; the use of harder types of bearings which were much less subject to failure and more efficient and more reliable, and the injection equipment.

Q Have there been any changes in design of insulation in this period?

A I think possibly one of the greatest factors affecting the performance of the diesel locomotive has been the improvement in insulation. The insulation used today is a synthetic, it is inorganic, it is not subject to deterioration after varied heat changes, it is impervious to oil and the dependability both of the control circuits and power circuits has been very greatly increased through the use of this material.

BY THE CHAIRMAN:

Q It is impervious to oil. Does that mean it is impervious to moisture?

A Yes, it is.

Q You gave us some evidence previously about ground relays being operated by moisture?

A That is a slip joint connection over which a sleeve fits and it has to be removable so that the motors can be disconnected when the trucks are replaced. We had our difficulties with the type of sleeve we were using which was proved to be not too successful in preventing moisture.

BY MR. SINCLAIR:

Q Has there been any affect in this development period between 1938 and 1949 on the relays of diesel electric locomotives?

A The first relays used were those that were

provided by the market at that time and they were open type. They were not quick enough and since then relays designed specifically for locomotive use have been manufactured. They are constantly being made more simple. Here again the use of alloy metals plays a big part. The metal as it becomes pitted and blackened does not oxidize and prevents the circuit from making contact and today we are being provided with relays which are sold which the manufacturer guarantees to operate trouble-free for six years. I should say trouble and maintenance-free for six years.

Q Now, under the third heading you dealt with, that is, improvements in lubrication and lubrication techniques or methods -- I forget your words?

A As I explained it yesterday we have what are known as heavy duty oils which have chemical additives which allow for high pressures. They are not subject to temperature changes. They have inhibitors in them which prevent oxidization and formulation of acidic sludges and consequently internal failures in your engine have become a very rare occurrence and you therefore do not have engine breakdowns such as were first experienced. This also affects the life of wearing parts and we

have shown through our own experience and tests that the life of these parts is continually being extended.

Q Is it correct or not that in earlier diesels they had separate lubricating systems and separate pressures and separate requirements and today you have a unified lubricating pressure system on the diesels?

A The original engines, some of them were what is known as dry sump engines. The lubricating oil was carried in a separate storage tank, the pump and appurtenances were exterior to the engine. Today the engine pump is direct driven through the engine crank shaft. The oil is contained in the pan or crank case which forms the base of the engine, the passages are usually in the interior of the engine and consequently there is not so much liability for pipe breakages or severe pipe leakages which might cause lubricating oil failure.

BY THE CHAIRMAN:

Q How do you tell when the locomotive requires more oil?

A They are provided with a dip stick on the crank case in just the same fashion as in modern automobiles. It is a stick which protrudes down into the crank case on which the oil level can be read after the dip stick has been removed from the

engine.

Q Is that the only way?

A That is the only way, yes. You could, of course, remove an inspection cover and you would have access right to the crank case.

Q Is there no gauge to indicate the amount of oil?

A No, there is no gauge to indicate that.

Q What about the low lube alarm?

A That, sir, is low lubricating oil pressure. That device indicates that the pressure in the lubricating oil system is below the safe value for adequate lubrication.

Q It means that the oil is not circulating properly?

A That is correct, sir.

Q This dip stick, how often does that inspection take place?

A You will have noted from the reports of the various trips that it has been the practice for firemen to look at that dip stick at all inspection stops. As we were saying yesterday the engine will generally use approximately 100 gallons of lubricating oil per month. We like to add it in large additions and would like to add it approximately twice a month. For that reason I think, I know that it is of little value taking oil readings in your crank case frequently;

it is not necessary.

BY MR. SINCLAIR:

Q Well, if your oil was actually close to the mark on the dip stick what is the view of the mechanical people, what are their instructions and practice? Do they want a few gallons put in at that point or do they not?

A We very definitely try to avoid adding lubricating oil at points other than the maintenance base possibly for the reason that we do not like putting it in in small lots. We are not equipped to provide it through a pressurized system. It means you have to take it out of a drum, put it into an open container and ~~put~~^{dump} it into the crank case. There is also the possibility of contamination occurring at that time. For that reason we very much prefer that oil not be added and we have advised them at different times that oil should not be added unless it is at or below the low mark.

BY THE CHAIRMAN:

Q And who is responsible, whose responsibility is it to see that oil is kept up?

A The maintenance staff's responsibility. At its base point when that engine is given a 5,000-mile inspection the oil is added to the full mark. Normally that will carry

it for 3,500 to 4,000 miles.

Q Have you had cases where the oil level got low at points other than maintenance points?

A Yes, we have.

Q How did those cases come about?

A At all turn-around points one of the requirements of the inspection is to check the oil level. If it is found at or below the low mark oil would be added at the turn-around point. We have had the very rare occasion of a lubricating oil pipe breaking and you would lose an abnormal amount of oil and in most cases that requires the engine being shut down and returned to its maintenance base.

BY MR. SINCLAIR:

Q Mr. Woodland, if the lubricating oil got too low would the low lube alarm apply if it got so low that it was affecting the ability of the engine to be properly lubricated?

A Absolutely, once the pump failed to pick up the oil the pressure would drop and the low lube alarm would operate.

BY THE CHAIRMAN:

Q Where is this dip stick located?

A It is located at the centre point of the crank case on both sides of the engine.

Q How do you get at it?

A In the car body type of unit it is immediately accessible in the walk-way. You just reach down and pull it out and it is about in the centre of the engine. By opening the centre doors you can reach down and read it on a road switcher type.

Q In your view you just said the place for that to be done is at the points you have already mentioned?

A Yes.

Q Is there any other occasion to open those doors?

A The doors are normally opened....

MR. SINCLAIR: This is on a road switcher, sir?

THE CHAIRMAN: Yes, I am thinking of a road switcher.

THE WITNESS: There are two other things that could be checked. One is the cooling water level. The other is the governor oil level. I do not consider that either of those necessarily have to be checked at frequent intervals over subdivisions.

BY MR. SINCLAIR:

Q Now, there was one other aspect of change and this is in regard to diesel fuels, Mr. Woodland. Has there or has there not been some development with the Canadian Pacific specifically on diesel fuels to meet the requirements of Canadian Pacific's

service?

A Do you mean re the location of the servicing stations?

Q No, I mean as to the constituents of the fuel, the mix of the fuel?

A Well, we have specifications for our fuel which have to be met by the suppliers, yes.

Q And how have you developed them? Have you developed them through your experience over the years and do you tailor them?

(2) A No, the Canadian supply pretty well came within our requirements as it was available when we first started to use diesels.

Q Are there changes in constituents of your fuel between winter and summer and fall and spring, do you vary your constituents in your fuel?

A In the winter you have to be assured that your fuel has a sufficiently low pour-point to prevent waxing in the tanks or in the system. In the west it is normal for the refineries in October to go on to what they call their winter line and they supply a fuel with a pour-point of approximately minus 30 degrees Fahrenheit. In the east I understand that fuel is stored in large quantities during the summer months for distribution during the winter and they then obtain summer fuel and it has been necessary and all

locomotives today are equipped with heat exchanges^{and} for the warming of this fuel as it is passed from the tank to the fuel header.

Q Is it a practice to put alcohol in fuel in the wintertime?

A That has been the practice, yes. In very severe weather one gallon of alcohol or more will be used. We have not had to use that practice in the west.

Q Do you know whether it has been normal on the north shore of Lake Superior?

A I understand it has been a standard practice on the Algoma district.

Q Now, Mr. Woodland, you have explained changes in locomotive design. Were the locomotives that the Canadian Pacific acquired, all of them equipped with all these changes that took place, or were they not?

A The locomotives that we purchased in 1949 were equipped as I have outlined them.

Q And have there been changes since 1949?

A There has been a constant improvement in each year's model.

Q And how do you take care of the updating or modernization of your motive power?

A That is one of the nicest features of the diesel locomotive. At main shoppings

or sometimes even at the running maintenance point modifications will be made to include new features of design and in some instances this is done with the supply of material being made at the manufacturer's expense.

Q Do you know, Mr. Woodland, for instance on the United States railways today what proportion of their motive power is what is known as pre-1950 power?

A I have been advised that between a quarter and a third of the units operating in the United States today are of the design previously used before 1949.

--

--

--

--

MR. SINCLAIR: Mr. Chairman, I would like to file as Exhibit 129-A a document headed "Temporary form - Canadian Pacific Railway Company", consisting of sheets 1, 2 and 3. The document is dated at the office of the Superintendent of Motive Power and Car Department, Toronto, June 1st, 1949.

HON. MR. McLAURIN: What is Exhibit 129 itself? You have to have Exhibit 129 before you can come to 129-A.

THE CHAIRMAN: Are you splitting Exhibit 129 into A, B, C and D?

MR. SINCLAIR: I was going to do that, sir.

HON. MR. McLAURIN: What have you in your hand now, 129-A?

MR. SINCLAIR: Let us call this Exhibit 129.

HON. MR. McLAURIN: Very well, now what is it?

MR. SINCLAIR: It is the routine duties of firemen on Alco --

HON. MR. McLAURIN: I don't want to write a book - just give me a short heading.

MR. SINCLAIR: This is a temporary form, outlining certain duties of the fireman on Alco power before leaving shop track, and dealing with periodic inspections to be made during trip, and having attached to it

a form on which certain readings would be made over the trip.

HON. MR. McLAURIN: That consists of three pages, and that will be Exhibit 129.

MR. SINCLAIR: Yes sir.

EXHIBIT NO. 129: Temporary form
routine duties
of fireman on
Alco locomotives.

MR. SINCLAIR: Exhibit 129-A is a revision of Exhibit 129. It is dated at Toronto; it is the same document, revised December 12, 1949.

EXHIBIT NO. 129-A: Revised temporary
Form - routine
duties of fireman
on Alco locomotives.

THE CHAIRMAN: There are just two documents, are there?

MR. SINCLAIR: Two documents consisting of three sheets each.

Now, looking at Exhibit 129, the document dated June 1st, 1949: The Commission will note that it says it is routine duties of firemen on Alco 1500-H.P. diesel electric road freight; then you will notice that there is something crossed out on the form; it was yard switching locomotives which was crossed out and was never issued.

THE CHAIRMAN: Road freight means

road switchers, I suppose?

MR. SINCLAIR: All car body types, at this stage, because as you will recall the road switcher really did not come along until later.

THE CHAIRMAN: All I have in mind is this means diesel electric locomotives engaged in road service?

MR. SINCLAIR: Yes. "... before leaving shop track, and periodical inspections made during run." After being out from June, 1949 until December, it was revised, although the third sheet of Exhibit 129 remained the same - that is the reading provisions of the form. It is noted as a temporary form.

BY MR. SINCLAIR:

Q. Are you familiar with those, Mr. Woodland?

A. Yes, I have seen them and know of them since early 1950, yes.

Q. These documents are dated at the office of the Superintendent of Motive Power and Car Department, at Toronto, is that correct?

A. Correct.

Q. Does that mean anything?

A. It means these forms were not issued on a system basis; they were used in the Eastern Region.

Q. You say they were used on the Eastern Region?

A. Correct.

Q. The road power that the Canadian Pacific got in the West did not start to arrive there until 1950, I think the evidence showed?

A. And 1951.

Q. When it was coming West did you have any discussion about these forms?

A. At different meetings that we had in Montreal I was advised and shown this form, and it was suggested to me we might possibly want to use it in the West. It was discussed very thoroughly with the majority of the mechanical officers in the West, and ^{all} ~~even~~ agreed that the requirements were unnecessary, they were onerous, and our experience to that time had not shown any reason for having these inspections made. Actually, those inspections are the duty of the maintenance staffs, and certainly we did not feel we should take that responsibility away from them. Consequently, we did not issue the forms and never did use them.

Q. That applies to the entire Western region?

A. That applies to the entire Western region. When Alco locomotives maintained in the Eastern region were

used in extended service from Fort William to Winnipeg we instructed that these forms be removed from the locomotives previous to the dispatch of the locomotives from Fort William westbound, because this certainly did not comply with what had become our accepted policy. That was later in 1954.

MR. SINCLAIR: Mr. Chairman, subsequent to the temporary forms shown in Exhibit 129, there was another form issued which I would like to file as Exhibit 130. On the upper right-hand corner of the form there is in small print "MP 604". It is headed "Canadian Pacific Railway Company, hourly inspection in engineroom of Alco/MLW road units.

EXHIBIT NO. 130: MP-604 -
hourly inspection
in engineroom of
Alco/MLW road
units.

BY MR. SINCLAIR:

Q. Mr. Woodland, are you familiar with this form?

A. Yes.

MR. SINCLAIR: The Commission might note that this form, which is now Exhibit 130, is similar although not exactly the same as the third sheet of the temporary form that

made up Exhibit 129.

BY MR. SINCLAIR:

Q. Now Mr. Woodland, when Exhibit 130 was issued did it have attached to it the routine duties of the fireman similar to pages 1 and 2 of Exhibit 129?

A. The only form I saw on the locomotive when the MP-604 came into use was the form as you see it here, the single page.

Q. What was the effect of this form in regard to Exhibit 129?

A. It eliminated the instructions ...

MR. LEWIS: It says so on Exhibit 130, at the bottom left-hand corner.

MR. SINCLAIR: That is so, Mr. Lewis: Let the witness tell the Commission.

THE WITNESS: It eliminated those instructions which were included in the two pages; it condensed the information that they thought was required, and provided space for the readings to be taken.

THE CHAIRMAN: Well, that is what it does say.

MR. SINCLAIR: Yes.

BY MR. SINCLAIR:

Q. And to complete Exhibit 130, how would this be done, Mr. Woodland?

A. The fireman would go back into the

engineroom of the unit; he would draw the position of the brush arms, which are shown as circles on the form, when the engine was at the 8th throttle position operating at full load. He would record the engine pressure, the lubricating oil pressure, the fuel oil, the turbocharger air pressure, and the cooling water temperature at that time.

Q. And it also says "Nearest mile post"?

A. That is correct.

Q. Was that form discussed with you?

A. Yes. And I could not see the value of it.

Q. Was it ever used in your territory?

A. It was never used in our territory.

Q. That is, on the Western lines you never had this form?

A. This form was never adopted for use on the Western lines.

Q. Who did you discuss it with?

A. I discussed it with the engineer of motive power and the general inspector of diesel equipment on the Eastern region, who I understand originally drew up the form.

Q. What conclusion did you come to as to its use?

A. I should say first that he had felt

this sort of information was necessary; he had **heard** something similar was being used in the United States. I could not go along with him because my experience did not indicate any need. I felt too that it might not be accurately compiled. He agreed that it did cause unnecessary work if the form was not correctly completed. They had found sometimes they ~~objected~~^{sub} the unnecessary work at the maintenance shop, but he still felt that he would like to use them.

Q. But you did not adopt them in the West?

A. No; even despite the arguments that he put up in its favour, we just did not consider its use, and it never was used.

Q. What was the next step in the development here, Mr. Woodland? Was it the introduction of the MP-74 form?

A. No, I think this form as we know it here was gradually withdrawn - it wasn't used, or was used infrequently.

Q. That is Exhibit 130?

A. Exhibit 130. It was, in effect, gradually withdrawn; I understand it was finally completely cancelled.

Q. What form is now carried on the diesel locomotive?

A. Form MP-74.

Q. When was it introduced?

A. In the West it was introduced in April of last year.

MR. SINCLAIR: Mr. Chairman, this is form MP-74 headed "Enginemah's locomotive inspection report".

EXHIBIT NO. 131: MP-74 - Engine-
man's locomotive
inspection report.

BY MR. SINCLAIR:

Q. You say this was introduced in the West in April last year. Do you know when it was introduced in the East, Mr. Woodland?

A. I believe the form was first printed in December, 1955, or it was revised in December, 1955. I don't believe the printed copies became available -- it was perhaps a month before they had them in the West; they may have been available in the East.

BY THE CHAIRMAN:

Q. Exhibit 131 apparently applies to all diesel locomotives?

A. It applies to all diesel locomotives in run-through service.

Q. Exhibit 129, 129-A and 130 apply only to Alco?

A. That is correct.

Q. Were there any documents similar to 129,

129-A and 130 with respect to other makes of diesel engines?

A. Not in the Western region, and I am not sure whether or not there were any in the East.

MR. MUNDELL: Exhibit 131 also refers to steam locomotives?

THE WITNESS: That is correct.

THE CHAIRMAN: Yes. I was thinking of Alco as distinct from other diesel locomotives.

--

--

--

--

MR. SINCLAIR: Sir, in answer to your inquiry I am informed that there were very few G.M. units received in the east early but there were some local forms out at the early times on these G.M. units in the east. On the Fairbanks Morse units which came along quite later -- that was in 1953-54 -- as I have been informed, they did not have anything like Exhibit 129 or Exhibit 130. Apparently there were some local kinds of forms. I don't know how they compared exactly with this 129, but these are all very hard to get at the present time because they have been out of use for many, many years and destroyed. But we were able to get a complete set for the Alco because there were more of them and they were very detailed and they were the first type the company received in any quantity.

MR. LEWIS: What are the forms that my friend is saying were destroyed many many years ago?

MR. SINCLAIR: Forms 129, 130 -- we had a real search to find the complete set.

MR. LEWIS: I don't accept that as evidence.

MR. SINCLAIR: Let me tell the Commission, then, how we finally did get a set. We got it from one of the members of my friend's brotherhood.

THE CHAIRMAN: All right, we have the documents now. We have 129, 129A and 130.

MR. LEWIS: My friend said they were destroyed years ago, and my instructions were that certain firemen got them as late as 1954 or 1955. I did not want his statement to go on the record without my observation.

THE CHAIRMAN: Well, let us hear the evidence.

BY MR. SINCLAIR:

Q. Mr. Woodland, you have dealt with Exhibit 131. This is an application of what kind of a form? Whose form is this?

A. This is the engineman's locomotive inspection report, and it also provides for a space for certification by the ~~fireman~~ of work done.

Q. Is this a Board of Transport Commissioners' form?

A. This is required by the Board of Transport Commissioners.

Q. Exhibit 131 is a Board of Transport Commissioners' form?

A. Yes.

Q. And prior to dieselization is it not a fact that a form somewhat similar to this was kept in each roundhouse, and the engineman used to note it up



after he came in after a trip.

A. The ~~form~~ in use was MP-74 which was kept in book form at each individual roundhouse.

Q. And this is now carried where?

A. This is now carried in the cab of run-through diesel and steam locomotives.

Q. Did yard engines have a form like 131 on it?

A. A looseleaf book is kept in roundhouses where yard service is reported, and if you had an engine wayfreight assignment, the work required would be reported on this form.

Q. Is a form like Exhibit 131 carried in the cab of a yard engine?

A. No.

Q. It is only carried on engines that go out on the road, is that correct?

A. That is correct.

Q. Who completes that? On the back I notice there is room for signatures.

A. That is the engineman's signature, and the engineman is responsible for completing this form.

Q. Yes. I see on the front of the form is "Repairs required or irregularities noted." For instance, take a locomotive moving out of Winnipeg,



and the engineman running it between Winnipeg and Brandon would note an oil leak at the No. 3 cylinder.

A. Yes.

Q. And the next engineman would take it from Brandon to Broadview. Would it be possible to see the same notation by that engineman?

A. The engineman will very often repeat a defect which has been noted by a preceding engineman.

Q. How is that type of defect that is noted on this Exhibit 131 taken care of by the maintenance force, and when?

A. If a defect was noted which in the mind of the engineman might be considered of a serious nature or which he might think might possibly affect the performance of the locomotive, he would wire ahead to the next sub-divisional terminal. They would have a man or two men available to meet the locomotive. They would inspect the defect and, if in their opinion it was not going to cause a loss of power on the unit or affect the performance in any way, they would allow the locomotive to continue. If it was some very minor thing they could repair with the limited facilities available to them, they would do so, but normally they would take the responsibility and they



would say "this engine is fit to continue" and it would continue to its home base point. Conceivably it might even be turned out of that point if the locomotive was urgently required, and the defect did not in any way affect the locomotive's performance.

Q. Now, on the MP-74, when you were riding diesels and your subordinates were riding diesels since you came on the railway-- ~~that~~ is Exhibit 131 -- what instructions are given the enginemen in regard to it?

A. Well, we always conduct an active campaign to have them complete the form as they are instructed in the instructions, and we
a always emphasize that any occurrence of alarm should be noted regardless of whehter or not subsequent events show that the defect possibly cleared itself. This form was provided to give the base maintenance point a record of anything which might have occurred to the unit while it was away from its home terminal.

Q. Now, Mr. Woodland, what was the next step in the development of the work of the firemen on diesels? This MP-74 was an engineman's form. Exhibits 129 and 130 were fireman's forms and, as you have told the Commission, they went out of use, and the MP-74 is the only form being carried

on locomotives since the spring of 1956.

Now, what was the fireman to do and how was he told what he was to do?

A. When the use of diesel units became widespread over the whole system, some local instructions were issued by men who probably had had no previous experience or who had not been actively engaged in diesel maintenance when they were first used. To eliminate any misunderstanding and to provide for system practice, a bulletin was issued in October, 1956 which describe the fireman's duties as they were to be understood on the system.

Q. Those are at pages six and ten of Exhibit 7. Is that correct, Mr. Woodland?

A. That is correct, covering Eastern, Prairie and Pacific regions.

Q. Now, you have that before you, Mr. Woodland, Exhibit 7?

A. I have.

Q. At page six or page ten, it does not matter. They are both the same. I notice it says in the latter part, in the second sentence:

"A helper is not required to patrol diesel units, except as directed by the engineman or as may be required for the operation of steam generators."

Now, leaving aside the last clause "or



as may be required for the operation of steam generators" because we are here dealing with freight road power, would you explain to the Commission what your view is as to patrolling diesel units en route by firemen or helpers or whatever you call them.

A. Could you repeat that?

Q. What is your view as to patrolling diesel units en route by firemen?

A. I consider this unnecessary.

Q. Is it unnecessary for them to check the governor oil?

A. ~~No.~~ Yes

Q. Has it or has it not been the practice on certain railroads to have little bottles of governor oil on the diesel locomotives?

A. That is correct.

Q. Has that been a practice on the Canadian Pacific?

A. It has crept in at times, and I was instrumental in having that practice strictly prohibited in the western regions.

Q. What about in the east?

A. I understand that is the same practice followed in the east, and that similar instructions have been issued.

Q. Why were you against having anybody going back putting governor oil in, adding

governor oil, Mr. Woodland?

A. The governor is a very very finely machined piece of equipment. It is a hydraulic device and the only way it can suffer damage is by contamination of the oil that is added to it. We go to quite an expense in buying the oil in quart sealed cans. If these cans -- as is sometimes done -- were carried on the locomotive they couldn't help but become contaminated with road ~~grind~~^{dirt}, dust, and **cinders** from passing steam engines. I was confident and I knew from inspections of governors we had made at Ogden that the only defect we ever found was caused by dirt. It therefore became essential to me to do all I could to prohibit any practice which might contribute to the accumulation of this dirt in the governor case.

Q. Now, what about checking cooling water by a fireman at a standing inspection or at an en route point?

A. I don't consider this is necessary. I think that the practice grew out of the engineman's natural concern for water glasses. I know when we first got the G.M. motors unit there was a great deal of confusion and a great deal of unnecessary work ~~in~~^{by} enginemen insisting that the top water glass be filled. The top water glass

only contained water when the engine was shut down. The glasses are located on the expansion tank. A very great deal of confusion existed and it took us a long time to stamp out this practice of requesting water at every sub-divisional terminal. Very many men in all conscientiousness would wire that water was required, and we would go and inspect the locomotive and we would find that rather than ~~not~~ having too little it already had too much.

Q. Well, now, what about checking the lube oil level by pulling out the dip stick and looking at it? You have given some evidence on that. What do you think as to the necessity of patrolling or looking at that at standing inspections?

A. I think there is absolutely no need for it. You could compare it to a man who every time he drove his car into the garage, he looked under the hood to see what his oil level was in his car. We know how long the engine will operate. It has a protective device, and if we were getting the lubricating oil shutdowns and they became troublesome, we would certainly go after the maintenance people responsible for adding oil, to see that the practice was so rectified that they did not cause these shutdowns. That is where the responsibility is and that is where it should be kept.



Q Well now, what about patrolling for leaks of diesel fuel or lubricating oil, leaks from pipe joints or fractures, hair-line cracks in the piping? What do you think as to whether that requires patrolling or inspecting by the fireman, or even by the engineman?

A As I said earlier, the majority of the lubricating oil piping is internal to the engine and any leakage you would get is generally of a seepage nature rather than of a pressure nature. We do not have very many pipe breakages or fractures, and any leakage that you get will be seepage around the gaskets, which even with the very best maintenance in the world cannot be completely avoided. I do not think that there is any reason -- our experience has shown that we do not have failures because of broken pipes, and we know we do not because nobody can fix them on the road.

In the piping we have used silver solder joints, and we use pressure fittings with flared tops, and you have to have special tools to be able to fix them. If we had that type of failure we would immediately undertake a campaign to revise the piping or make the necessary changes.

Q What about lubricating oil, the danger of fire? What is the flash point of lubricating oil as used on the Canadian Pacific?

A The specifications for most of the lubricating oil used on the Canadian Pacific shows a flash point of around 450 degrees fahrenheit. Lubricating oil is very difficult to ignite and there has not been a fire because there are no open flames or anything around that would ignite it. The oil is drained into sumps and out of the locomotive.

Q Is the locomotive constructed that way, to take care of that type of thing?

A That is correct.

Q What about diesel fuel oil, what is the flash point of diesel fuel oil?

A The flash point of diesel fuel oil is around 150 degrees fahrenheit. Diesel fuel oil is a comparatively heavy oil.

Q Could you ignite it by throwing a lighted match into it if it was on the floor?

A It would not ignite.

BY HON. MR. McLAURIN:

Q What is the flash point of gasoline?

A I do not know. Fuel oil is not volatile and there is no gas in it.

Q The flash point would be high?

MR. SINCLAIR: The flash point would be low. We will check that.

HON. MR. McLAURIN: It was just curiosity.

THE WITNESS: One of the advantages of a diesel locomotive is the fact that it uses a fuel which is safely handled.

BY MR. SINCLAIR:

Q In your view could a fireman patrol to look for the possibility of fire, an incipient situation that might cause a fire on a diesel?

A In all the time I have been riding on diesel locomotives I never saw a fire on one, nor the threat of a fire. I have never had a fire reported to me on locomotives operating into the Winnipeg terminals in the years I have been Division Master Mechanic. I understand that we have had four or five fires reported to our department of insurance. I definitely feel that the fire hazard on a diesel locomotive is very slight.

Q Have you had any experience with diesels that have come to you for maintenance or where you have inspected them where they have had some damage from fire in the locomotive?

A Yes, I have seen them, but we don't look

on them as fires. I have seen a cam switch which operates to change from power to dynamic braking; I have seen it burned up through an electrical current overload. The wiring attached to the switch was badly charred and the switch insulation was charred out of it. I have seen electrical insulation burned off relay coils. We have had occurrences of overload and overheating of the traction motors which would smoke in quite a volume. But in all these instances these devices are located in enclosed metal cabinets and there is nothing combustible around them. Electrical insulation will smoulder and burn away, but it does not flare or flash out. I am absolutely convinced that the fire hazard on a diesel locomotive is very small.

Q What, in your opinion, use could a fireman be in patrolling to check against it?

A Well, it has not been my experience that firemen patrol with any degree of regularity, and as a matter of fact it is quite infrequent. They would have to be lucky to happen to be there at the time to do something.

Q What could you do?

A You could use a fire extinguisher.

Q And if you did not use it what would happen?

A Nothing would happen. You would lose the piece of equipment that is overheated. As I say, it is generally the electrical equipment, but you certainly would not save it by using an extinguisher on it.

Q Based on your experience in Western Canada on diesels, what have been the practices? Have firemen patrolled these car body types, or have they not?

A I have seen firemen who patrol and I have seen firemen who do not patrol, and in my experience it has not made the slightest difference to the operation.

Q What has not made the slightest difference?

A Whether or not the fireman patrolled the unit.

Q I think you gave some evidence yesterday about road switchers. Just to keep it in proper position, Mr. Woodland, what is your view as to patrolling road switchers while they are going across the road?

A They cannot be patrolled while they are going across the road.

Q What has been your experience as to the reliability or performance of road

switchers that cannot be patrolled, as you say, and the car body types where a fireman could patrol?

A When we first bought the road switchers that factor was given serious consideration and we particularly watched for the type of defect we had on the first road switchers we used in the west. We felt that we knew that other units were getting some attention and after quite a long period during which I read all the reports of the assistant inspectors and diesel inspectors, whose duties were almost solely confined to riding the units, a conclusion was reached that the incidence of defect on road switchers was no greater than it was on the car body units. This has been proved in each succeeding year.

---Recess.

--

--

BY MR. SINCLAIR:

Q Mr. Woodland, what repairs and adjustments can an engineman make on a diesel locomotive at a standing inspection or before taking the locomotive out on a run?

A There are no repairs or adjustments that the engineman can make. He is not provided with the tools that would be needed to handle the type of equipment.

Q What tools does he have?

A He has a hammer, a chisel, a monkey-wrench and he may have a very large Stillson wrench which is a pipe wrench.

Q Has that always been the practice on Canadian Pacific to only give those tools on diesel locomotives?

A Those are the general issue. On steam an engineman would oftentimes either obtain additional tools from the shop or he would purchase tools. It varies with the man but some men would have a very good stock of tools to handle any little emergency situation.

Q That is on steam?

A On steam.

Q When Canadian Pacific first received its diesels for road in 1949 did they only supply the engineman with a hammer, chisel and wrench?

A The practice was changed. At one time

the engineman always had his own tool-box. When diesel locomotives were used the practice of giving the enginemen tool-boxes was discontinued. The tools are carried on the locomotive and no tool-box is provided to the engineman.

BY THE CHAIRMAN:

Q What is the purpose of the tools on the locomotive?

A Primarily to change air-brake hoses that might be ruptured or broken. The hammer and chisel is used if a knuckle is broken on the draw-gear. A spare knuckle is carried and the defective one will be removed and the new one applied.

The tools are very rough and it is only for the assistance maybe of dropping brake-beams that have been dragging but they are not designed or cannot be used for any of the finer work that you can conceivably think of in and around the locomotive itself.

BY MR. SINCLAIR:

Q Can the engineman repair a leak on a lube oil pressure system, Mr. Woodland?

A No. I know of instances where, not in the lube oil system but in very many cases even a diesel maintainer who generally has tools with him cannot do too much to locomotives. It has to be

brought in to the locomotive^{repair} point.

Q Are there any spare parts, spare relays or anything of that nature carried on the diesel locomotives?

A No, unlike railroads of the United States when the units were first used we never did carry spare parts, not even to the extent of a gasket. I have seen some American railroads with a compartment or cabinet built in the car body which had a fair amount of spare parts. We have never done that.

Q Do you or do you not think it would be of assistance to your performance if they were available?

A No I don't. The locomotive as I know it is very dependable and we would very much prefer that maintenance work be done by maintenance staffs.

Q In your opinion is an engineman qualified to make mechanical and electrical repairs on diesel locomotives?

A In my opinion he is not and in my opinion he does not consider himself to be.

Q Well now, so much for the engineman. What about the firemen on these diesel locomotives? Can they do any of this work?

THE CHAIRMAN: I suppose if the engineman cannot the less so would they be

able to.

MR. SINCLAIR: Perhaps I should say ...

THE CHAIRMAN: Well, you can ask the question if you like.

BY MR. SINCLAIR:

Q What is your answer?

A No, if the engineman cannot certainly the fireman cannot.

Q Now, Mr. Woodland, what preparatory work is required on a diesel locomotive coming off the shop track by an engineman or a fireman who might be assisting him -- what preparatory work is required?

A There is no preparatory work required on a diesel coming off the shop track.

Q Why?

A That work is done by the maintenance staff. It is their responsibility and there is no point in having a man who is lesser qualified than the man who is making an inspection follow him around and make a second or superficial inspection.

Q What about if he is not inspecting but just checking, what do you think of that?

A I think the key to our entire maintenance program rests on the establishment of responsibility at the base point. If a locomotive develops a defect which investigation discloses was a maintenance

oversight on its way west from Winnipeg the Winnipeg staffs would not be assessed the responsibility for that item if that item should have been included in the last check made at Calgary. We want to centralize this responsibility and we are striving to do that within our own maintenance personnel. I think it is essential to good performance that that program be followed out completely.

Q Now, you have given your views as to checking governor oil, cooling water, lube oil and various things by patrol. Your view was that that was not required by engine crews. What about before starting out? Do you think it is required or do you not to have these various things checked by the engine crew before moving off the shop track?

A No, I don't think it is necessary.

--

--

--

--

Q. What about run-through diesels?

A. On a run-through diesel locomotive one engineman takes over directly from another one. If there has been any unusual occurrence he will advise him; and in many cases he is immediately aware of anything that is slightly off. It is shown on the work report form; he looks at that form; he knows no previous advice of a defect has been given to the maintenance staff. He can only assume, and should assume, that the locomotive is fit to continue, and anything he could do is just extra.

Q. What do you mean by that?

A. It is not necessary.

Q. What about fuel supply, diesel fuel and water supply on the locomotive?

A. That again is the responsibility of the maintenance staff.

Q. Have you ever had any cases where diesels have run out of fuel?

A. Yes.

Q. Were the engineer or fireman disciplined for that?

A. They were not only not disciplined, but they were not even questioned.

Q. Is that with respect to locomotive crews and maintenance staff crews under your jurisdiction?

A. That was under my own jurisdiction, yes. The responsibility is placed on the shop supervisor who in conducting his investigation will determine who was responsible for the oversight, and if conditions warrant it that man would be disciplined.

MR. SINCLAIR: Mr. Chairman, the duties of an engineman, preparatory, on the shop track and run-through are set out in Exhibit 114, at pages 1 and 4.

BY MR. SINCLAIR:

Q. Mr. Woodland, have you got that Exhibit 114 before you? It consists of a number of pages: Page 1 gives the duty of the engineman when taking charge of and before moving a diesel locomotive at a maintenance point. Would that be a shop track?

A. That would be a shop track.

Q. That would be the duties of the engineman as set out at page 1 of Exhibit 114?

A. That is correct.

Q. And at page 4 it shows the duties of an engineman taking charge of a locomotive at a run-through point. Were you or were you not part of the mechanical team that decided what these duties should be?

A. My opinion was asked and it was given.

Q. Does this conform with it or does it not?

A. This conforms with the general view held by the mechanical officers in the West.

Q. Including yourself, or not?

A. Including myself.

Q. Now as to final inspection, the duties of the engineman are shown at page 2, of Exhibit 114, with regard to shop track; and at page 4 with regard to run-through points. What comment have you on the duties of an engineman for final inspection of these diesel locomotives at shop track or run-through points?

A. I think the duties as outlined adequately cover the situation. They may be all lumped into one, the securing of a locomotive.

Q. What work in your opinion is there for a fireman on a diesel locomotive, first preparatory?

A. I do not consider there are any duties required of a fireman for preparatory inspection.

Q. And what about final inspection for the fireman?

A. The same applies with respect to final inspection. In fact, no inspection is made when the locomotive arrives on the shop track, by the fireman.

Q. Why do you say that?

- A. Because even when I am right there - and I am their supervisory officer - they will immediately leave the locomotive without any pretence whatever of making any inspection.
- Q. I wish now to turn to the question of brakes. Yesterday you gave the Commission a certain explanation of dynamic brakes. Perhaps to set this up properly, you should shortly explain dynamic brakes, Mr. Woodland; then I will ask you to deal with other brakes on these diesel-powered freight trains.
- A. The dynamic brake is only provided on diesel locomotives, and as I said yesterday, you obtain the same effect as you would by placing your car in the second gear when descending a hill. Although that analogy does not hold throughout, the dynamic brake imposes retardation on the train through the use of traction motors.
- Q. That dynamic brake, when applied for instance on a two-unit consist, a three-unit consist, or a four-unit consist, does it apply on each unit?
- A. It applies in each unit. As I said yesterday, the locomotive will brake down a hill what it will haul up a hill.
- Q. Will you explain, please - I have

forgotten whether you covered it --
whether dynamic brakes apply only on
the locomotive?

A. Dynamic brakes apply only on the locomotive.

Q. And is it possible to use dynamic brakes on the locomotive and also use your independent brake on the locomotive?

A. No, that is prohibited.

Q. How is it taken care of?

A. When you are in the dynamic braking position your independent brake or locomotive air brake is automatically locked out.

Q. Just take it when you are in the dynamic braking position, and please explain -?

A. May I add one step? When an emergency occurs on the train, the locomotive brakes will apply even when you are in dynamic braking.

BY HON. MR. MARTINEAU:

Q. What is the advantage of dynamic brakes?

A. It probably sir is one of the greatest assets of the diesel-electric locomotive. It saves wear on brake shoes; it takes care of the stress which is imposed on brake rigging, when you are descending long grades, some of which are as long as 20 to 25 miles; it prevents overheating of wheels when you are using

air brakes on long grades where the brakes are held on almost constantly. This overheating of the wheels often times leads later to wheel fractures, breakages or shell-out of tread, or at times broken rims. I think everyone connected with railway operations have appreciated the distinct advantages which the dynamic brake has given both in operation and as regards safety.

Q. Are they more effective than air?

A. It must be considered entirely as a holding brake. A dynamic brake would never be used in moving the locomotive on or around the shop track by itself, and it is not generally used in making slow-downs or stops. It can be used for that purpose, but generally it is not used. As I say, it must be considered as a holding brake.

Q. And do I understand you use it as we would use the second gear in our automobile to slow down, but not to stop?

A. Exactly, sir.

BY HON. MR. McLAURIN:

Q. Where is it located with respect to the throttle?

A. The control is immediately adjacent to the engineman. It is a lever which he moves into the dynamic brake range,

and he can govern the output and thereby the amount of dynamic braking, by adjusting the lever to the right.

Q. Would I possibly have seen an engineman doing that while riding in the cab of a passenger train from Field to Lake Louise?

A. Yes, you very definitely would. It is important to note that on dynamic braking you can no longer over-load the equipment; it is automatically controlled. The engineer can govern the amount he desires, but he does not have to try to govern it beyond the maximum limit, because that is automatically controlled. That has helped him considerably, because on a long grade he no longer has to be very careful not to exceed the rating of the brakes.

BY MR. SINCLAIR:

Q. Where is dynamic braking used for the most part on Canadian Pacific, on what section of the country?

A. It is used mostly and to great advantage on the Laggan and Mountain subdivisions; as a matter of fact, it is used in the whole district of British Columbia, both in Kootenay and Kettle Valleys, as well as on the main line from let us say

Calgary to Vancouver.

Q. Now, what has been the reaction of the enginemen that you have run with in regard to this dynamic braking? Did you have any discussion with them about dynamic braking?

A. Certainly; and a good deal of them consider it the greatest single improvement on the locomotives, over the use of steam. Perhaps I could make reference to a comment that I have often heard: This is the best thing on the locomotive. I remember too travelling down with Mr. McCracken, who was General Manager at the time and who had previously been an engineman in Mountain service. He said "At one time braking a train down this hill, or a hill of this size, was an art. Today they have ruined all the fine touches - it is just like driving a street car."

Q. What about the independent brake, the so-called engine brake? Would you please describe that to the Commission?

A. The engine brake, often called the independent brake, is a brake which is operated by compressed air: The air is compressed on the locomotive, and by operating the valve compressed

air is admitted to the cylinders and the brake applies only on the locomotive.

BY THE CHAIRMAN:

Q. May I understand you. Suppose there is a consist of more than one locomotive, what happens?

A. If there is a consist of more than one locomotive, the braking equipment that is provided on diesels permits braking on all units in the consist, and them only.

Q. Would it not operate on the passenger cars, if it was a passenger train?

A. Not the independent or locomotive brake, no. It is normally used chiefly when moving the locomotive light on or about the shop track, from the shop track to the train. It provides a means of braking the locomotive. It gets its name, independent automatic brake, or train brake ...

BY MR. SINCLAIR:

Q. Is that the brake used in yard operations?

A. That is the brake normally used in yard operations.

Q. We come now to the third class we have spoken of, which is known as the automatic or train brake. How does that work?

A. When a train is made up, a brake pipe extends throughout the length of that train.

Q. Is that on both passenger and freight?

A. On both passenger and freight. The connections **between** cars are made by the use of flexible rubber hoses. When the engine is coupled to the train compressed air is supplied to this brake pipe, which charges the individual brake system on each car, either passenger cars or freight cars. When the pressure on the individual brake system on each car and the train line reaches a pre-determined point - it is 70 pounds on freight and 90 pounds on passenger service - the train line is completely charged, and the train is ready to operate. When the brake is applied by the engineer what he does in effect is reduce the pressure in the train line pipe. We are working on a balancing^{cf} pressure: When the pressure is reduced in the train line pipe, the equipment operates to admit air into brake cylinders and apply the brakes on every car on the train. In this way, if there is a break in two --

Q. That is a break in two of the train?

A. Of the train - the brakes will apply.

Q. The air hose is ruptured?

A. The air hose is ruptured and the brakes will apply on every car in the train and on the locomotive.

Q. The brakes will apply in what position?

A. They will apply in emergency, which only provides a faster acting and supplies a higher pressure brake. The brake can be applied by the conductor; in effect, all he does is open the connection in the train line pipe, allow the air to bleed out and reduce the pressure in the train line, which then applies the brakes throughout the train and on the locomotive.

Q. Is that what is known as the conductor's valve, which is on the caboose?

A. That is what is known as the conductor's valve, and it is on every caboose. There is a means of applying brakes from every passenger car and on the diesel units, in addition to the automatic brake valve - the brake can be applied in emergency from the conductor's valve on the locomotive unit.

BY HON. MR. MARTINEAU:

Q. Is that why the hand brake must be applied on a freight car when it is

running alone or being pushed?

- A. When you are handling cars in a switching move you would have to drain the air from the brake system, because the brakes would apply as soon as you split the hose; the hand brake is applied to prevent the car from moving.

BY MR. SINCLAIR:

- Q. There is no air in the reservoir of that car after the hose has been uncoupled?
- A. The air is immediately exhausted, yes, and the brakes applied, and then the reservoirs are drained. You could not depend on them because they would eventually leak off.
- Q. That is why they apply hand-brakes on these cars?
- A. Yes.
- Q. That has been referred to here as tying down?
- A. Tying down is the term used.
- Q. You were talking about the conductor's valve, and I think you used or said something about the conductor's valve on the engine. You mean there is an emergency valve also on the engine?
- A. That is a more proper term.
- Q. Which is in the cab on road switchers, is it not?
- A. Yes.
- Q. And in A units sometimes it is right behind the door?
- A. Right behind the door. It is located so that it is readily accessible.

BY HON. MR. McLAURIN:

- Q. When you are bringing a train to a stop what brakes are used? Let us say you are taking a passenger train into a terminal.



- A. The automatic brake, the train brake.
- Q. Say that I am on the Canadian going into the station at Toronto and the train comes to a stop. You use the automatic?
- A. Yes.
- Q. And then you proceed into the station?
- A. That is correct.
- Q. Is the independent used?
- A. It is used when the locomotive is being used light in the yard, and in switching.
- Q. And the dynamic for excessive grades?
- A. For excessive grades.
- Q. Without using the automatic?
- A. I should point out that the automatic brake can also be used in conjunction with the dynamic brake.

BY MR. SINCLAIR:

- Q. In what way? If you were going to use the automatic and dynamic together where would the automatic be applied, what part of the train?
- A. It would be applied, of course, from the automatic brake valve in the locomotive.
- Q. What part of the train would it work on?
- A. It would work on the train itself.
- Q. You mean the cars as distinct from the locomotive.
- A. As distinct from the locomotive.

BY HON. MR. McLAURIN:

- Q. On a freight train you have this hose

connection?

A. Yes.

Q. Is there an air reservoir in the locomotive?

A. Each diesel unit is equipped with an air compressor and two reservoirs, tanks. They are called main reservoirs where the compressed air is, sir.

Q. When you are making up a train in a coach yard you fill each coach independently?

A. That is correct.

Q. You fill each chamber independently of the locomotive?

A. That is correct.

Q. And then you have the whole thing hooked up?

A. That is correct.

Q. And the locomotive has an additional reservoir of air?

A. That's right.

Q. So that if you have^a/leak somewhere, you have a reservoir to call on?

A. That is correct, and the air in these reservoirs is constantly being replenished by the compressor on the locomotive which is automatically controlled. As soon as the main reservoir pressure drops to, say, 125 pounds the compressor starts to pump air into the reservoir, and when it reaches 135 pounds the compressor stops.

Q. You said something about a disconnection of these rubber things. If there is a disconnection between two cars, does that interfere with the operation?

A. If they become disconnected between two cars, the train and locomotive brakes will apply in emergency.

Q. Say the thing ^{breaks} ~~brakes~~ between Fort William and and Winnipeg, nobody would know about it until the train got into Winnipeg, would they?

A. That could not happen. As soon as any break occurs in that train line, the brakes on the train go into emergency.

Q. So, if you have one of these rubber connections go on the flooey, to use the vernacular, it acts as an emergency?

A. Exactly, and that is why the equipment is designed that way. It fails safe.

BY MR. SINCLAIR:

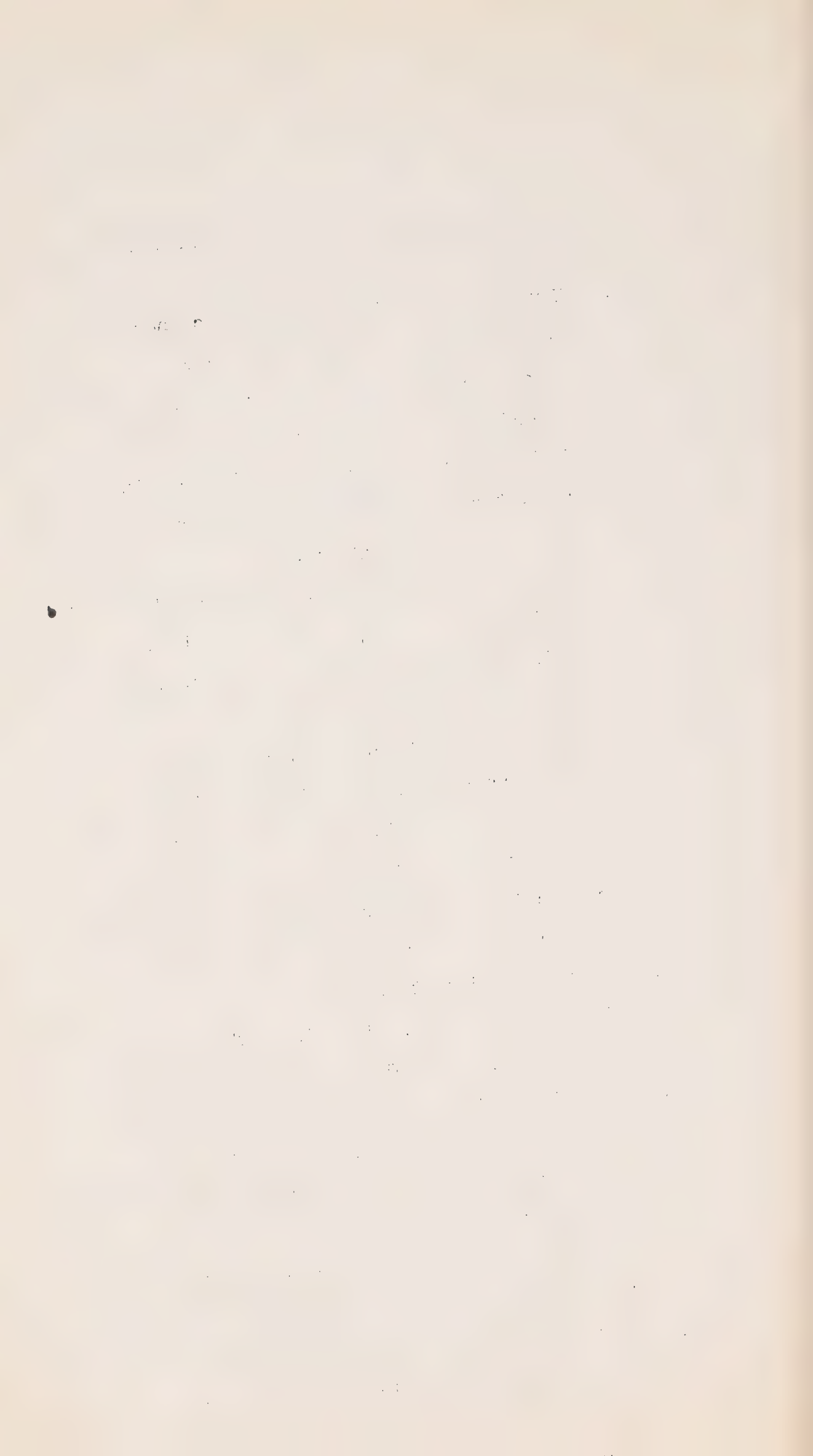
Q. It fails safe?

A. In other words, if there is a failure in the system it fails in a safe position.

BY HON. MR. McLAURIN:

Q. I always thought the rubber connection was the heating system.

A. That system is carried in the train in a round connector which is considerably larger and is made up of flexible metal joints, pipes and swivels.



Q. But this one that is cut down on passenger trains and freight trains is the air connection?

A. That is correct.

BY MR. SINCLAIR:

Q. In view of what the witness has said, the Commission may recall the evidence given by Mr. Johnson of freight trains stopping at what was termed the air plant at St. Luc, as an example. That is used, is it not, for pre-charging the freight trains and filling up the reservoirs before putting them on the locomotives?

A. That's right. That is called ^{yard} ~~air~~ charging, and it is done to minimize the time taken by the locomotive to pump up the complete train.

BY HON. MR. McLAURIN:

Q. Let us say a trainman disconnects two freight cars. Take in the hump yard. How do they disconnect that rubber business? Is that automatically done or does he have to get in between the two cars? Is there something that is automatically done?

A. The connections are designed in what is called the glad hand. The two cars come together like that (demonstrating) and when they are pulled, they split themselves. We used to insist that these be uncoupled manually because sometimes there will be a

rupture of a hose if it does not free, but with ~~pumping~~^{humping} becoming more general, that is no longer an instruction.

Q. In that hump yard at St. Luc, you would sometimes have a cut of five or six or even more; but when you are catching individual cars going different places and you have the trainman there, he is supposed to pull the pin but if he doesn't pull the pin at all and just yanks the crank, which takes the coupling off, what would then be done?

A. He would drain the air system.

Q. And then this hose business would operate itself?

BY MR. SINCLAIR:

Q. The air would have been drained before the cut of cars started to be humped. The air would all be drained out of the reservoir.

HON. MR. McLAURIN: I saw them doing it at the hump just before the car was ready to go.

BY MR. SINCLAIR:

Q. Is that correct?

A. That is possible.

BY HON. MR. McLAURIN:

Q. That is what I understood this chap was doing.

A. In yards they have men assigned to do what they call bleed the air.

Q. This chap was calling in and then bleeding

the air?

A. That is quite possible.

BY MR. SINCLAIR:

Q. If you were going to set off a couple of box cars off a freight train en route or a batch or whatever number are in the cut, would you bleed the cars off or would you not before you made your switching move or your set-off?

A. Normally you would not bleed them off. You would close the angle cocks where the cut is being made, and you would handle the cars with air on the systems and set them to where they were going to be, and then when you were going to leave the cars you could set the hand-brakes and bleed the air system. I suppose at times they don't bleed the air system, but the air system should be bled.

Q. For instance, say we were going to have a 60-car freight train and you take 30 away and leave 30 cars standing there. Is it possible to close the angle cocks on the 30 left, leaving them with all their cylinders charged up?

A. Yes.

Q. And the reservoirs charged up?

A. Yes.

Q. And close the angle cocks on the end of the batch that is going to be pulled,

and leave it charged up?

A. That is correct.

BY HON. MR. McLAURIN:

Q. What are you going to do when you take a cut of 30 cars and they have all been bled? How do you get air in them?

A. When they are placed in the train their system is charged with the air from the locomotive.

BY HON. MR. MARTINEAU:

Q. Isn't it the same when you open the cocks and let the air in?

A. That is correct.

BY MR. SINCLAIR:

Q. When you are putting 30 cars off, the Hon. Mr. McLaurin pointed out they often cut off and there is no air left in their reservoirs, and the witness --

THE CHAIRMAN: Said they were connected up and the locomotive pumps them up.

THE WITNESS: That is right.

BY MR. SINCLAIR:

Q. So before he moves off he has a full train line of air. Is that correct?

A. Yes.

Q. Now, Mr. Woodland, what types of diesel locomotives have dead-man controls on the Canadian Pacific?

A. The dead-man control is provided on

practically all types, all road locomotives. It is in service on passenger locomotives.

Q. What do you mean by in service, connected up?

A. It is connected up and is being used, and instructions compel its use.

Q. And on freight diesel locomotives, is it or is it not connected up?

A. On freight diesel electric locomotives it is not connected up.

Q. Is it on yard locomotives -- is there a provision there for yard locomotives?

A. There is no provision for dead-man control on yard locomotives.

Q. Taking road freight power, in your opinion as a mechanical man and an operating officer, if firemen were removed from road freight, do you or do you not think the dead-man controls should be applied on these road freight locomotives?

THE CHAIRMAN: You mean connected up?

BY MR. SINCLAIR:

Q. Yes. Do you think they should be connected up?

A. I have given that matter some very serious thought and I think as an extraordinary precaution they should be.

Q Well now, in your opinion and from your knowledge of these dead-man controls, how do they operate? I think the Commission should be told how they operate.

HON. MR. McLAURIN: What is the gadget?

BY MR. SINCLAIR:

Q How do they operate?

A Actually it is a valve to which is attached a foot pedal. The foot pedal must be kept depressed, otherwise on road freight locomotives the full service application of the brakes will take place on the locomotive and the train and --

Q You said in road freight service; did you mean that?

THE CHAIRMAN: Let him finish the answer, please.

THE WITNESS: You asked me how the safety control pedal worked.

BY MR. SINCLAIR:

Q How did they work?

A They work exactly the same in road freight service.

Q I am just asking you how they work?

A I said if the foot pedal is not kept depressed the brakes apply on the train and on the locomotive and the locomotive stops producing power.

BY THE CHAIRMAN:

Q What brakes?

A The train brakes apply on the train.

BY HON. MR. McLAURIN:

Q Automatically?

A Automatically, and the brakes apply on the locomotive.

BY THE CHAIRMAN:

Q The dynamic brakes?

A No.

Q Just explain what you mean by brakes?

A I do not want to get too seriously involved in this air question because I am not an expert on air. The locomotive brakes can be applied through the use of the automatic brake valve. That will apply the brakes on the train and it will also apply them on the locomotive.

Q You are using several terms to describe this, they may mean the same thing or they may mean something different. You are saying what happens when the pressure is taken off the lever and you said that the brakes apply; what brakes?

A The brakes apply on all cars in the train and on all units of the locomotive.

Q That is the train brakes?

A The train brakes and the brakes on the locomotive, the air brakes. I am

referring now to the piston becoming charged with air and the brake-shoes actually contacting the wheels.

BY HON. MR. McLAURIN:

Q The train would include everything?

A That is correct.

Q Locomotives, coaches, cars; every time you say "train" you mean everything?

A That is correct.

BY THE CHAIRMAN:

Q But you do not mean the independent brakes in that connection?

A No.

BY MR. SINCLAIR:

Q When the pressure is released by this pedal how long does it take for the brakes to become applicable?

A There can be a delay of up to six seconds before the brake applies.

Q Is that subject to adjustment? Can you make it whatever you like?

A That is subject to adjustment and it is not necessary that that be done at all. You can have it so arranged that the brakes will apply immediately the pressure is taken off the pedal.

BY HON. MR. McLAURIN:

Q Where is it? Does the engineman have his foot on it?

A The engineman holds the pedal down with

his foot. It is located right in front of his seat, right underneath where he would normally place his feet.

Q At the present time the only place where you have these dead-man controls is on passenger?

A That is correct.

Q If a unit goes onto freight service I suppose you can disconnect it so that you do not have to use it?

A That is correct.

Q And every time a unit is hooked up to a passenger train it is on?

A It is on.

Q And the engineman on the passenger train must have his foot on it?

A That is right. The only time he can lift his foot from that pedal is when the independent brakes are applied.

BY MR. SINCLAIR:

Q Where would the automatic brake valve be?

A The automatic brake valve would be in the running position.

Q When you are going over the road on a passenger diesel --

THE CHAIRMAN: You use the phrase "automatic brake valve." Did you mean the dead-man control valve?

MR. SINCLAIR: No, sir, I am

talking of the throttle brake valve.

THE CHAIRMAN: That is the train brake?

MR. SINCLAIR: That is right. It would be in the running position. When it is in the running position the engineer can take his foot off that to use his independent brake valve. That is when he is on the engine alone.

BY MR. SINCLAIR:

Q Is that correct?

A That is correct.

THE CHAIRMAN: Do I understand from that that the automatic brake valve is in the running position and that that is the only time that the dead-man control will operate when the engineer takes his foot off?

MR. SINCLAIR: Will not operate.

THE CHAIRMAN: Will not operate.

MR. SINCLAIR: That is, when he is stopped he puts his automatic brake valve into running position and he can then stand up and the brake will not apply. He has the independent brake valve applied on the engine which may be holding it on a straight level tangent of track. That is enough, and he can stand up.

BY THE CHAIRMAN:

Q When you say in running position, that means the automatic brake is applied?

MR. SINCLAIR: It is not applied when it is in running position. I do not think there is any doubt about this, but maybe I should try to explain this.

BY MR. SINCLAIR:

Q I have been told and I understand that you make application of the automatic brake valve depending on how many pounds you want, say 15 pounds. You draw off 15 pounds by the automatic brake valve and put it over into lap and that holds the 15 pounds on the train line until such time as you release it by bringing the brake valve into running position. When it is brought into running position that releases the brakes. Now if at any time the brake is engaged and the engine is moving at all, as I understand it the brake valve is put over out of this stop position, then if you lift your foot it will go off. The dead-man control will become effective unless you are using your automatic brake valve in running position and when you are using your independent brake on the engine you have to be doing two things; is that correct?

A If the locomotive brake is not applied the dead-man control will become effective. The purpose of that simply

is that the engineer when he comes to a stop applies the locomotive brake and then he can get up and take a little stretch if he likes.

HON. MR. McLAURIN: You have referred to automatic brake, independent brake and now locomotive brake. Is that another brake?

MR. LEWIS: Is that the independent brake?

HON. MR. McLAURIN: We have had three categories of brakes and now you are talking about another one.

MR. SINCLAIR: The witness has used the term locomotive brake.

BY MR. SINCLAIR:

Q Is that the independent brake?

A That is the independent brake.

THE CHAIRMAN: That is what I understood; if the independent brake is on then the dead-man control will not operate because there is no need for it.

THE WITNESS: That is it.

THE CHAIRMAN: If the independent brake is in the running position the dead-man control does not operate?

THE WITNESS: That is correct.

THE CHAIRMAN: And in those circumstances that is the time the dead-man control would not operate?

THE WITNESS: That is it.

HON. MR. McLAURIN: Suppose an engineer collapsed and placed an even heavier weight upon the dead-man control, how is it going to operate? Instead of having just the weight of his foot on it, you have a complete dead weight right on top of it?

BY MR. SINCLAIR:

Q What would you say as to that, about somebody collapsing and what effect that would have on the dead-man control?

A I would feel that if a man took a seizure or something that even released muscular tension, he would trip it. It trips very easily. I have been in cabs many times and seen a man just make a slight move without raising his foot by any means, just make a slight movement, and he would get a warning whistle.

BY THE CHAIRMAN:

Q Do you know of any cases or any reported cases where an operator had a seizure and was unable to control his locomotive and the dead-man control did not operate because of the fact there was a weight still on it?

A I do not know, no; I have never heard of one.

Q What you are saying is that an engineer having a seizure is an exceptional case

in itself, and that exception would be narrowed by the reasons you have given, that is cases where he might have a seizure and the weight of his foot on the control would not be taken off; that would again narrow the exception. Then there is the case where ultimately the thing we are talking about does happen, that is that the weight does not come off the pedal, but then if you have not a fireman there you have the trainman there.

HON. MR. McLAURIN: Provided the dead-man control is unfastened.

THE CHAIRMAN: I am applying it to freight service. You have your trainman there to take over if necessary. Would that be summarizing your evidence?

THE WITNESS: That is summarizing my evidence correctly.

BY HON. MR. McLAURIN:

Q Have you ever heard of a dead-man control operating on a diesel without all this happening? Have you ever heard of that?

A I have never heard of a reported instance on our railroad.

Q What about the United States railroads?

A I cannot recall, and I have done quite a lot of reading.

Q You are interested in it and yet you have not heard?

A I have never heard. My memory might be refreshed on this, but I have never heard of such an instance, no.

BY THE CHAIRMAN:

Q While we are on the subject perhaps we could be told why the dead-man control is not in operation on road switchers and in freight service?

A Because I think the fact that there are three men in the cab and it is considered superfluous. I honestly opposed its use in passenger service myself. I did not oppose it, but I did not feel it was necessary in passenger service when the other man was there. I think it must be considered as an extraordinary precaution. We have never had any serious complaints about it and it does not impose any restrictions on the engineer.

BY HON. MR. McLAURIN:

Q Is the installation expensive?

A No. I think there was one order -- I can be corrected on this -- of locomotives that we did not have equipped with dead-man controls, but all the locomotives with which I am familiar, the control is installed and all that

remains to be done is to apply the pedal. We even have the pedals.

MR. SINCLAIR: I have some evidence by a later witness as to the cost of the application.

BY MR. SINCLAIR:

Q Mr. Woodland, what is your view if firemen were removed from yard engines; what is your view as to putting dead-man controls on the yard engines?

A No, I do not think it is necessary on yard engines. They are moving at limited speeds and they are in very close contact with the ground crew. I feel that in those very rare occasions when something like that might occur nothing much or of more consequence than a heavy impact would be involved, and heaven knows we have them now. I do not feel that they are required on yard service.

--

--

Q Well now, from a mechanical standpoint can they be applied on yard engines?

A Yes, they can be applied on yard engines.

BY HON. MR. McLAURIN:

Q Would they be the same kind having regard to the activity of the engineman on yard service, he has to be looking all over all the time?

A As I visualize it we would have to provide it to be operated from sort of a circular pipe which would maybe require toe pressure to operate. But there are no design difficulties and it would certainly be possible to use.

Q From your experience you think it presents no unusual technical problem to do it?

A No, I know it does not.

BY MR. SINCLAIR:

Q Now, from your experience, Mr. Woodland, of riding engines, maintaining them and supervising enginemen how would you compare the job of an engineman on a steam engine and the job of an engineman on a diesel, how do they compare?

A I would say that the job on a diesel electric locomotive is considerably lighter. It does not require the same amount of physical effort in handling what are sometimes heavy throttles, ^{such} as they have on steam engines. His controls are

manipulated almost by finger touch. He is provided with good vision, not hampered by smoke or steam, he has windshield wipers, windshield defrosters, forced ventilation cabs, the diesel locomotive rides like a coach. I know from personal experience you can ride over a subdivision on a diesel electric locomotive without feeling tired when you get off.

BY THE CHAIRMAN:

Q They must give you a place to sit down?

A They do not -- and on a steam locomotive engine I don't think very many men would want to ride much more than one division. There really is no comparison as to the comforts and the mental strain. It is not required of the engineman that he be the judge of how to apply the steam to the cylinder. He has a speedometer, the response is instantaneous, he can judge his speed and manipulate his throttle through eight positions. He has the tractive effort available to lift trains. He is not faced with that worry of possibly pulling the draw gear apart. I think that any engineman would agree that there is practically no comparison between conditions on a diesel locomotive as against steam.

BY MR. SINCLAIR?

Q Now, Mr. Woodland, based on your experience and knowledge as a mechanical and operating officer of Canadian Pacific, in your opinion are firemen required for any mechanical reason on freight or yard diesels for the safety and efficiency of operation?

A No.

MR. SINCLAIR: There is just one thing further I wished to do with this witness and I am sorry I forgot this. Mr. Woodland made eight trips. I gave a copy of these to my friend last night. I would like to file them as Exhibit 132. I think there are eight of them. They are trip reports made by Mr. Woodland during February.

EXHIBIT No. 132: Trip report
of witness
made February
1957 consist-
ing of eight
sheets.

These are, as I have gone over them, Mr. Chairman, very straightforward and the material is set out in them in a very concise way and I do not think it is necessary for me to take this witness through these various pages.

BY MR. SINCLAIR:

Q If there is any one in particular, Mr. Woodland, that you would like to draw attention to I think that you travelled something over 1,000 miles on these trips.

I notice that most of them are what we call, if not all of them, symbol freight trains operating in western Canada, is that not correct?

A That is correct.

MR. SINCLAIR: They are all symbol freight trains. They are all, I think, with the exception of one, General Motors units. There was one Trainmaster. That was No. 3 of Exhibit 132.

BY THE CHAIRMAN:

Q I was going to ask could you just tell us page by page what these units are?

A I think I have them marked, sir.

MR. SINCLAIR: You have the manufacturer marked, Mr. Woodland. On page 1, sir, are road switchers.

THE CHAIRMAN: Both of them?

MR. SINCLAIR: Yes sir. Page 2, also road switchers. Page 3 is marked, it is a Trainmaster, Fairbanks-Morse or C.L.C. Trainmaster. Page 4 is a road switcher on the lead and a B unit in the second position in the consist.

THE CHAIRMAN: When you say "B unit" is that a closed body type?

MR. SINCLAIR: Yes, without a control station.

THE CHAIRMAN: Without a control station?

MR. SINCLAIR: Yes.

THE CHAIRMAN: There are some boosters. They are not B units?

MR. SINCLAIR: Those boosters are only in yards, sir, and the only place we use them is at Cote St. Luc.

THE CHAIRMAN: So a B unit must mean a car body without a control station?

MR. SINCLAIR: Yes. It is set out in Exhibit 103. That actually happens to be a picture of the engine that is in here, that is, engine 4448. Exhibit 103 happens to be that very engine.

HON. MR. McLAURIN: What page is that?

MR. SINCLAIR: Page 4. Page 5 of Exhibit 132 is again two road switchers as is page 6 and 7.

HON. MR. McLAURIN: There is a B unit in 8 as well?

MR. SINCLAIR: Yes, 8 is a four-unit consist with three road switchers and a B unit as the fourth unit. It is road switcher, road switcher, road switcher and then the fourth unit is a B unit.

THE WITNESS: I should perhaps explain here that the two trailing units, the 8616 and 4428 as shown in page 8 were being moved to Winnipeg for the transfer of the power and there was no jumper cable between the 8616 and 4448 and we were operating as a three-unit consist.

BY HON. MR. McLAURIN:

Q You were deadheading that one?

A Yes, we were deadheading the engine home.

BY MR. SINCLAIR:

Q Was it not running?

A It was idling. That is the practice when units are not used for power, they are left idling.

MR. SINCLAIR: Out of these trip reports I think there is just one comment I would like to bring to the attention of the commission. If we take page 2 of Exhibit 132 under "Details of Duties Performed by Firemen Enroute" you will note:

"Blew out main reservoirs."

That has been shown on a number of these.

BY MR. SINCLAIR:

Q Now, Mr. Woodland, what is the requirement of blowing out main reservoirs and who is responsible for it?

A The engineman is responsible to see that is done when the unit or locomotive is enroute and the shop staffs are responsible for seeing that they are drained when the locomotive is on shop tracks.

Q And how often, is there any regulation or anything that would say how often you are to blow out your brake reservoirs?

A Once every four hours and in severe weather oftener if the opportunity

presents itself.

Q Just how do you do it?

A Well, actually all it is you open a drain valve in the reservoir and the compressed air rushes out and carries with it any ~~con-~~^{moisture} ~~centrate~~ that would have accumulated in the reservoir.

Q Would it take long?

A No, it is a matter of opening the valve.

BY HON. MR. McLAURIN:

Q Fifteen seconds?

A If there was a good deal of moisture you might probably take fifteen or twenty seconds until you got rid of most of your moisture.

BY HON. MR. MARTINEAU:

Q What causes that moisture to be there?

A Well, when you compress the air you actually take a large volume of air and compress it into a small space and you increase the moisture content per cubic foot. When you cool it it drops out.

MR. SINCLAIR: I have a note here, on checking my notes of yesterday, sir, that I said I would ask this witness a question as to how does the Canadian Pacific inform its engineers, how does it instruct its enginemen regarding their mechanical requirements on these engines.

BY MR. SINCLAIR:

Q How do you do it, Mr. Woodland, how does the company inform enginemen as to whatever

you want them to know about the mechanical and electrical functions of the diesel locomotive -- how do you do it?

THE CHAIRMAN: You mean how do you educate them?

MR. SINCLAIR: That is right. That is a question I think you put yesterday to me, sir.

(2)

THE WITNESS: Well, that is a function of the road foreman of engines who, when they make their 1,000 miles of qualifying trips will instruct them ~~into~~ the operation of the protective devices and how they are to be re-set. In addition to that he advises them of the characteristics of the locomotive which makes handling a little different and supervises their handling until he is sure they have understood what he means.

BY MR. SINCLAIR:

Q Does the Company maintain instruction cars for people who are in engine service to acquaint them with the diesel locomotive?

A A mechanical instruction car which has a mechanical instructor and an assistant has been kept on the instruction for diesel locomotives almost continuously for four years and that man, also, conducts the air brake examinations which must be passed by the enginemen periodically.

Q What about your diesel people -- do they have classes or anything for enginemen?

A Our District Diesel Inspectors and our Assistant Diesel Inspectors are always available to instruct enginemen. They will, in some instances, hold lectures. We have done that pretty extensively in the west.

Q Have you done it?

A I have done that myself, yes, and we would generally try with enginemen to give them in addition to the simple instructions some of the fundamental knowledge of the type of equipment which they are handling and we find when locomotives are first introduced this is very well received.

THE CHAIRMAN: Well, we will adjourn until two o'clock.

At 12:30 p.m. the Commission adjourned until 2 p.m.

--

--

--

--

--

Tuesday,
April 9, 1957.

AFTERNOON SESSION

--- The Commission resumed at 2.00 p.m.

B.B. WOODLAND, recalled.

EXAMINED BY MR. LEWIS:

- Q. Mr. Woodland, there was one explanation with regard to the ~~brakes~~ which you made that I could not quite follow. It is just merely a matter of understanding better. You were talking about the dynamic brake and you explained to the Commission that it applied in each unit of a consist. Then you said something to the effect -- I just didn't understand -- that it automatically locked out the independent brake and you added "except when emergency occurs" or words to that effect. I could not quite follow this reference to emergency, which you didn't explain.
- A. If you were descending a hill using dynamic braking, and an emergency occurred from the rear of the train, the brakes would apply on the locomotive.
- Q. You mean if there was an emergency application of the air-brakes from the rear by the conductor releasing the valve at his use?

A. Correct.

Q. I suppose again just for the purpose of understanding, that fits in with a later statement you made that you could work the automatic brake in conjunction with the dynamic brake? The release of the conductor's valve is equivalent to the application of the automatic brake.

A. No.

Q. It is not equivalent to it?

A. No.

Q. Would you just explain that?

A. There is a feature which will prevent the brakes from applying on the ~~train on the~~ engines which consists of the multi-units when the brake is applied from the automatic brake valve when the locomotive is being operated in dynamic braking. Let me explain that again. If you are operating in dynamic braking and you apply the train brakes ^{from} and the automatic brake valve, the brakes will not apply on the locomotive itself.

Q. I see. They will apply on the cars.

A. On the cars.

Q. But not on the locomotive?

A. Not on the locomotive.

Q. Now, we were speaking about the dead-man control and you made a statement with regard to it, which struck me. You said you had never had any serious complaints about it.

The use of the word "serious" there, does that mean there have been some complaints?

- A. There have been some objections from engine-men regarding its use. There has been no serious objection from enginemen regarding its use.
- Q. I was struck by your use of the word "serious". Am I right in thinking now and was I right in thinking then that the engineers find it a little wearying to maintain their foot on the pedal without movement?
- A. I have personally questioned every engine-man working on the Portage division in passenger service, and they have assured me that they do not find it onerous in any way to keep their foot on the pedal. I have one man who assures me that he could not remove his foot if he wished, he is so trained to keep his foot on the pedal.
- Q. But you are quite sure he would remove it if anything happened to him? It would come off?
- A. Yes, it would be beyond his volition then, I presume.
- Q. What I was driving at, Mr. Woodland, was with respect to your statement that as an extraordinary precaution you would be in favour of putting the dead-man control on the road freight diesels in the absence of the firemen. I was wondering -- and

that is the way they were connected in my mind -- whether the complaints you have had referred to keeping your foot motionlessly on the pedal for a few hours as you do now on a passenger train, and what it would be like keeping it there from nine to twelve hours on a local freight run?

A. That is not what influenced my answer.

Q. Would there not be some difficulty there for the engineer to keep his foot motionlessly for a long period of eight, nine, ten to twelve hours on a freight run?

A. If any train took that long to get over a sub-division, he would be making numerous stops at which time, by applying the locomotive brake, he could release his foot from the pedal and relax his leg if he wished.

Q. And get his spell-off from the tension.

A. If he felt that was necessary.

Q. Now, we were talking about maintenance staff at sub-divisional points. Am I right that at every sub-divisional point he would have a maintenance staff to look after these diesel engines, inspect them and make any repairs necessary? Is that right?

A. At sub-divisional points we have a maintenance staff, which is a carry-over from the round-house staff used to maintain steam locomotives. We are still operating both.

Q. And that is why you have it now? At points where there are steam engines no longer in use, do you still have a staff there?

A. Yes.

Q. What does the staff consist of? Are they really trained people?

A. Normally they are men who have served apprenticeships either as machinists or electricians with the company. If they have not served an apprenticeship with the company, they have to satisfy the local management that they are competently qualified in the craft which they profess to serve.

Q. You are suggesting that they are either craftsmen who have gone through the apprenticeship or they possess the qualities necessary for the craft?

A. Yes.

Q. At these points?

A. Yes.

Q. You said, for example, that at Portage La Prairie you were going to have a charge hand there.

A. That is correct.

Q. Do you know the person you actually have in mind?

A. I know the person who is there now, yes.

Q. What is his mechanical training, Mr. Wood-

land?

A. He has not served an apprenticeship nor has he ~~not~~ had outside experience which might qualify him as I stated, and he in no way is engaged in the maintenance and inspection of diesel locomotives today, and I am not too sure that he will remain there when we assign a diesel hydraulic switcher.

Q. I gather from what you said in your evidence unless my note or memory was wrong, that you were going to have this charge hand there to do just that, inspect and make minor repairs of your diesel.

A. Provided the man is capable and adaptable, with the special instruction we could give him through the assistance of our District Diesel Inspector and our Diesel Inspector, we would assure ourselves he was capable of maintaining that equipment or we would be forced to get someone who was.

Q. The point of that evidence, as I understood it, was that because of your maintenance program the age of the diesels would not affect their --

THE CHAIRMAN: Serviceability.

BY MR. LEWIS:

Q. -- their serviceability at all.

A. That is correct.

Q. I have been looking at some American reports, Mr. Woodland. You do have undoubtedly some of your C.P.R. trains running in some parts of the United States.

A. That is right.

Q. And your diesel locomotives with them?

A. That is right.

Q. Is that right?

A. We did operate jointly with the Boston and Maine where I think our locomotives were shared, and we do operate twelve units on the Montreal-Wells river, but apart from that --

BY THE CHAIRMAN:

Q. What about the Sault line?

A. The Sault line operates their own diesel electric locomotives from Minneapolis to Winnipeg in passenger service. The division of power in freight service is made at Emerson on the border.

MR. LEWIS: I have here, Mr. Chairman, three annual reports of the Interstate Commerce Commission, one for 1951, one for 1955 and one for 1956, which I would be glad to file as exhibits and undertake to obtain the number of necessary copies.

THE CHAIRMAN: Exhibit 133 will be the report for 1951, and Exhibit 134 will be the report for 1955, and Exhibit 135 will be the report for 1956.

EXHIBIT NO. 133: Interstate
Commerce
Commission
Report for
1951.

EXHIBIT NO. 134: Interstate
Commerce
Commission
Report for
1955.

EXHIBIT NO. 135: Interstate
Commerce
Commission
Report for
1956.

BY MR. LEWIS:

Q. Mr. Woodland, I turn to the 1951 report.

MR. SINCLAIR: I would like to state to the Commission, and I think this can be verified by inquiries at the Board of Transport Commissioners, I have been told that the Board of Transport Commissioners have refused to accept the basis of inspection or requirements on diesel locomotives that are a part of the Interstate Commerce Commission program, and I take it that what my friend is putting in now will be restricted to the locomotives operating in the United States that happen to be owned by the Canadian Pacific.

THE CHAIRMAN: I do not know what these reports have reference to. I suppose they cover what they cover and if it is not a complete story, why, somebody will have to fill in the gap. You have filed your caveat, Mr. Sinclair.

MR. SINCLAIR: I just object to them being put in on the basis of them being representative of anything except what they

do in the United States.

MR. LEWIS: Mr. Chairman, I think I can make my answer to my friend a little better when this is in. I will reserve it, if I may, with your permission.

BY MR. LEWIS:

Q. I show you Exhibit 133, the report for 1951, pages 34 and 35 which is table 13, number of locomotive units other than steam inspected, found defective and ordered from the service etcetera. I draw your attention, Mr. Woodland, to the fact that under Canadian Pacific there were in that year 25 locomotives reported, 68 locomotive units inspected, and seven --

A. No, 78; we are in the wrong column, I think.

Q. I beg your pardon, we are not. It shows 25 locomotive units reported, 68 locomotive units inspected, seven locomotive units defective, and the percentage of inspected found defective was 10.3, is that right?

A. That is exactly what it says.

Q. Then in Exhibit 134 --

THE CHAIRMAN: Are you going to explain what "reported" means?

MR. SINCLAIR: I would also like him to explain what "defective" means when he is at it.

THE CHAIRMAN: Well, one thing at a

time.

MR. LEWIS: I have not looked up the details of that, Mr. Chairman.

THE CHAIRMAN: I was wondering what it meant there. All right, proceed, Mr. Lewis.

MR. LEWIS: I have not had time to study it that thoroughly. If I may, I will finish this and then point out to the witness what I think is the significance of it.

BY MR. LEWIS:

Q. Then in the 1955 report there are, locomotive units reported 31, locomotive units inspected 89, locomotive units defective 28, and the percentage of inspected units found defective is 31.5.

A. That is for what year?

Q. 1955.

HON. MR. MARTINEAU: What page are you referring to, Mr. Lewis?

MR. LEWIS: Page 21, the same table 13.

BY MR. LEWIS:

Q. Then at page 21 of the 1956 report, Exhibit 135, the number for the same thing are shown. We can read them together, Mr. Woodland: Locomotive units reported 36, locomotive units

inspected 77, locomotive units defective 38, percentage of inspected found defective 49.4. Is that right?

A. That is correct.

Q. Now the point I want to ask you, Mr. Woodland, is this: Whatever the basis of the inspection in the United States may be, whether or not you or anyone else agrees with it, in view of your statement that the age of the diesel engine in effect makes no difference, can you explain how we have 10.3 per cent defective of those inspected in 1951, 31.5 per cent in 1955 and 49.4 per cent in 1956?

A. I think I can suggest at least a partial explanation. I have just recently read where in the past year or two the I.C.C. have become considerably more restrictive in their terming of defects. As a matter of fact, the United States' railways are presently arguing that the regulations of I.C.C. are too burdensome and not realistic. I also have read that the I.C.C. had threatened to crack down on oil leaks around engines, and I think that is what they have done. I don't think that 49.8 per cent of

our engines could be defective.

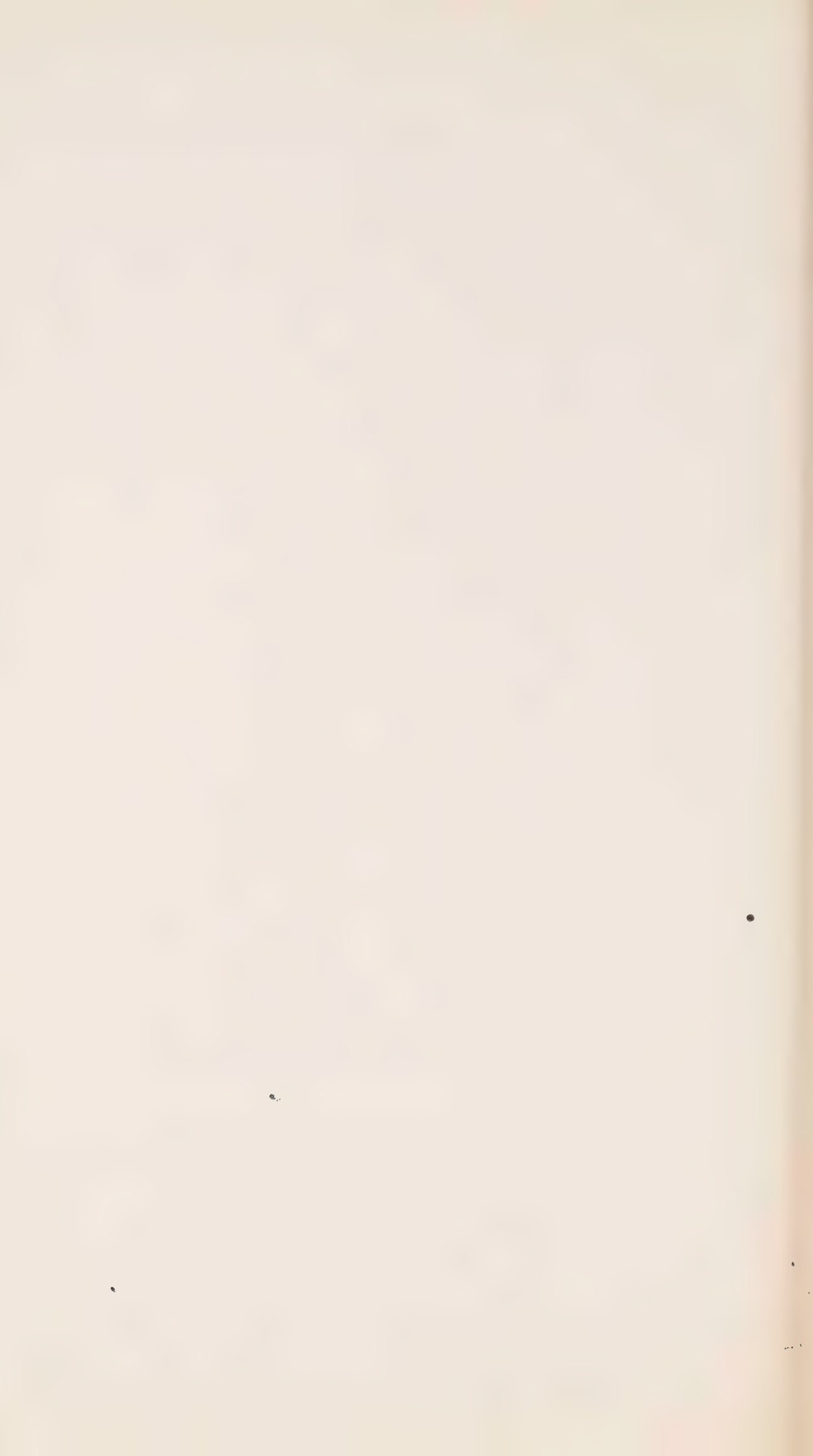
Q. You just don't agree with the basis?

A. It does not meet my experience at all.

Q. Then Mr. Woodland, I show you Exhibit 50, which is the 1955 report of the Board of Transport Commissioners for Canada, which is the Canadian experience; and at page 77 of that report we find the information regarding defects of locomotives other than steam, reported by the Board's inspectors for the year ending December 31, 1955 for the Canadian Pacific. I ask you to read it with me: The locomotives inspected number 767, and the locomotives defective, 213, which according to my arithmetic is 27.8 per cent - they show 27.7 per cent, but I think it is closer to 27.8 - of the locomotives inspected were found defective by the inspectors of the Canadian Board in 1955.

I then take you, Mr. Woodland, to the report of the Board of Transport Commissioners for Canada for 1954, which has not yet been filed as an exhibit.

MR. LEWIS: Mr. Chairman, perhaps that could be filed now as Exhibit 136.



THE CHAIRMAN: Yes.

EXHIBIT NO. 136: Report of
Board of Trans-
port Commissioners
for Canada
for 1954.

BY MR. LEWIS:

Q. At page 61 of Exhibit 136, the 1954 annual report of the Board of Transport Commissioners, for the Canadian Pacific we have 413 locomotives inspected, 76 locomotives found defective; and again, according to my arithmetic, 18.4 per cent of the locomotives inspected were found defective.

So, if you will for a moment accept my arithmetic, you had in 1954 18.4 per cent of the locomotives inspected found defective, and in 1955 you had 27.8 per cent of the locomotives inspected found defective. What would be your explanation for that in Canada, in view of your statement to this Commission?

A. There again, they may be a little more rigid in their listing of defects because of the increased use of diesel power. I must depend upon my experience, and I know that locomotives are still operating on the same basis as they did when they were purchased new.

10346

THE CHAIRMAN: Perhaps you had better call the witness' attention to what appears to be described as defects in these reports.

HON. MR. McLAURIN: Now what year is shown in Exhibit 136?

MR. LEWIS: 1954.

THE CHAIRMAN: At page 77 of Exhibit 50, what is referred to as defects appears to be listed.

MR. LEWIS: Yes, they are.

THE CHAIRMAN: It would be illuminating to know in connection with the Canadian Pacific what this 281 consist of.

MR. LEWIS: Thank you very much, sir; I should have thought of that.

MR. SINCLAIR: What page is that shown on?

THE CHAIRMAN: Seventy-seven.

MR. SINCLAIR: I think the listing is somewhat similar in the I.C.C. reports too, sir, and even more so.

THE CHAIRMAN: I suppose the only way we are going to know what these defects were is to find out.

MR. LEWIS: Yes.

THE CHAIRMAN: I suppose the railway is told by the Board what the defects are that they find and are included

in these reports.

MR. SINCLAIR: Yes sir. The practice with the Board has been to inspect these engines at any time. These engines may be inspected at a turn-around point --

THE CHAIRMAN: I assume that, but you would know what these 281 defects were.

MR. SINCLAIR: After the inspector had done his inspection, he would tell us what they were; and in some cases he would even inspect it when it was in the shop, undergoing --

THE CHAIRMAN: I am not referring to that. I am merely asking you if the railway would know the particulars of these 281 defects?

MR. SINCLAIR: Yes; they are actually listed under the various headings here; the particulars of them are actually listed. For instance, in the exhibit you are referring to, Exhibit 50, the classification, for instance, accident prevention, cleanliness, 171...

THE CHAIRMAN: What are you reading from now?

MR. SINCLAIR: Page 77 of Exhibit 50.

THE CHAIRMAN: Yes, but the defects that are listed there are the defects that

they found on all three railways.

MR. SINCLAIR: That is right sir.

THE CHAIRMAN: What I am asking for here is the particulars of the 281 defects that were brought home to the Canadian Pacific; they are not on page 77.

MR. SINCLAIR: They are included.

THE CHAIRMAN: Yes, they are included, but we do not know what they were - they might be lights, or horns.

MR. SINCLAIR: Yes, we would have to go back in our records.

THE CHAIRMAN: The only way we can know what they are is to find out what they are, and ask this witness or somebody else what he has to say about them.

I am not interfering with your cross-examination, Mr. Lewis.

MR. LEWIS: I understand, sir. I imagine if the railway hasn't got that information, the Board of Transport Commissioners would be able to put their hand on it very quickly.

THE CHAIRMAN: I would suppose so.

BY MR. LEWIS:

Q. You have looked at that a little more closely, Mr. Woodland. Do you want to add anything to the explanation you have given?

A. You must remember that there is no division made according to age in this list. I think I explained that we do have defects even with new locomotives. I note there is only one main generator and four traction motors for the three railways; that is the type of equipment which you would think would deteriorate with age. I also note there are 115 defects involving internal combustion engines, which I would assume would involve oil leaks, which is not evidence of aging. So, without further information I could not give you anything further.

Q. Why do you say that oil leaks are not necessarily evidence of aging?

A. Because the oil leaks usually occur despite numerous efforts of the manufacturer to stop them - at the crank case cover openings, the ^{air}box inspection cover openings, what we call the top deck which seals the cylinder heads. That is a matter of gasketting, which we renew as required. It is an expendable item. Therefore, I do not think that that is entirely relevant as far as age is concerned.

Q. Mr. Woodland, admitting that I am exceedingly ignorant about mechanical and electrical things, would you really insist that a diesel engine for some mysterious reason is sort of indestructible by time? Is that what you are trying to say to the Commission?

A. Certainly not. Any piece of mechanical equipment deteriorates with age.

Q. Exactly.

A. Let us speak of the locomotive engine frame: when we find that a frame won't meet the ~~condemned~~^{condemning} limit we have established for it, it is scrapped, and a new frame is installed in the locomotive.

Q. And in the process of reaching its condemned limit it deteriorates?

A. Yes, but our maintenance program is established on the basis of scrapping it or replacing it before it reaches the point of failure. That is exactly what our maintenance program is designed to do.

Q. All I am suggesting to you, Mr. Woodland-- and you will correct me if you know I am wrong -- whatever your maintenance program may be and whatever limit you may have established, on the way to reaching that limit there is

deterioration, is there not?

A. I can't agree with you, no, in view of the explanation I have given you.

Q. You mean you jump from zero to the limit, in one leap?

A. No, but you establish limits which are safe limits. In the wearing of a liner or the wearing of a piston ring, from the day that piston ring or that liner is put in it begins to wear, but we establish a limit which precludes the failure on the job.

ows)

--

--

--

--



Q I appreciate what you are saying is that the limits you have established in your maintenance program are based upon your experience and I suppose your answer to me would be that any deterioration that would take place on the road would be of no consequence because of the safety of your limits? That is in fact your answer?

A That is my answer.

Q But that you agree there would be some deterioration even if you considered it inconsequential?

A I misunderstood your question.

BY HON. MR. MARTINEAU:

Q You would not replace the whole engine after a few years, it would be just certain parts?

A Each individual part has a limit imposed upon it, a specifications limit, and it is not too often that an entirely new engine has to be installed.

Q Would you suggest that after 20 or 25 years it would be a new engine?

A In view of our experience, let us say, there would be very few of the engines originally purchased that are the same as they were 25 years ago.

BY MR. LEWIS:

Q You would have to replace parts?

A Yes.

BY HON. MR. MARTINEAU:

Q When you use the word "engine" I suppose you mean the motors?

A I was speaking of the diesel engine in the locomotive.

Q Only the motor or the whole engine; you are speaking only of the motor?

A The diesel motor.

Q The engine itself?

A The engine itself.

Q The whole of it?

A That is correct.

BY HON. MR. McLAURIN:

Q Are you acquainted with aeroplanes and, if so, perhaps you are familiar with the DC-3. I understand that that aeroplane is about 25 years old and is no longer manufactured, but it is actually much sought after by private companies who wish private planes. They are overhauled every 500 miles. I have ridden in this type of aeroplane innumerable times and even those that are 25 years old seem to be running just as good today as they did 25 years ago. Is that the sort of thing you had in mind in referring to the diesel locomotive?

A Mr. Newman, Chief of Motive Power,

always explains^{ed} the maintenance of a diesel locomotive in terms of aircraft maintenance. The form we certify is a certification of fitness.

BY MR. LEWIS:

Q You told the Commission that if there was a repeated ground relay -- three times I think you said?

A That is correct.

Q If it was tripped three times then you would not do anything more, you would have to shut it down. I think you referred also to constant wheel slip. By the way, that is recorded on some alarm?

A It flashes a light immediately in front of the engineer.

Q I am instructed, Mr. Woodland, that on some of your engines, even on some of the General Motors engines with which you have dealt with mainly, and on the Alco and Fairbanks-Morse as well, they now have a device by which you can cut off each traction motor if you find it is defective?

A That is correct.

Q And I suppose that would be one way of retaining say three-quarters of your power on a unit by cutting off just one traction motor instead of losing the

power of all four?

A That is correct. The General Motors locomotives, with which I am most familiar, was not provided with this switch until late last year.

Q But it is now provided and you agree that it is provided on the other makes?

A That is correct.

Q Surely that is one step the engine crew could take, could they not, in the case of constant repeated ground relays, assuming they were related to the traction motor? I understand you could have a ground relay arising out of other causes, but if it was related to the traction motor you could just shut off that traction motor; right?

A That is right.

Q The same thing with a wheel slip; if it was related, if the defect was related to the traction motor, you could do the same thing?

A No, you would not do that normally; no.

Q Pardon?

A You would not do that normally, no, in the case of a continuous wheel slip. You would not isolate the traction motor.

Q Why? I am instructed that it has been done. Why would not you do it?

A Well, the slip indicates that one pair

of wheels is turning over faster than the other. If you have a continuous wheel slip and the power operation seems to be normal, there is a very decided likelihood that one pair of wheels is gripping, either due to a defective axle journal bearing or a motor bearing, and if you isolated that engine, ^{or} if you isolated that motor you would eliminate your protection and you would possibly produce a wheel ~~seize~~ ^{seize} ~~for~~ which you would have no knowledge and it would be dangerous.

Q I think I understand your explanation about that. It is only when you can be sure that the wheel is wheeling freely that you would isolate the traction motor?

A That is correct.

Q Otherwise you might get into trouble because it would grab?

A That is correct.

Q Now, as a matter of fact, Mr. Woodland, on this question of repairs on the road and so on, I should like to show you this Form 104. This is a form which describes an employee being given merit or demerit marks.

MR. LEWIS: I am afraid I have nothing else with this, but my friend would

have the file that relates to it. This is a Form 104 in the name of -- I will give this name for reasons which will become obvious in a moment -- of Raymond Albert Carman of Nelson, British Columbia, and is dated November 1, 1956. Apparently the company file number is S-5103. I am sorry I cannot give any more information than is on this, but I note that there are five demerit marks referred to on that particular form which were received for assisting in a temporary repair.

MR. SINCLAIR: Five merit marks.

MR. LEWIS: I am sorry, I meant to say merit marks. That is why I used the name.

EXHIBIT No. 137 -- Form 104,
Raymond Albert
Carman.

MR. LEWIS: This reads:

"Please be notified that your record has been credited with five merit marks for assisting to make temporary repairs to a diesel-electric unit minimizing delay to passenger train."

BY MR. LEWIS:

Q That has happened even in the case of a diesel unit?

A It has; you have evidence of it there.

Q It has happened that the crew of a train, the engine crew has been able to make temporary repairs on the road?

A That is correct.

Q There is no reason why they should not continue to make such temporary repairs as they are qualified to make, is there?

A That is the exception rather than the rule, Mr. Lewis.

Q There are exceptions?

A Rather than the rule, yes.

Q Well, I am instructed that this form which I showed to you concerns a passenger train and that they saved about six hours' delay. That would be a pretty important saving for the company with a passenger train, would it not?

A It certainly would.

THE CHAIRMAN: Do we know what the repairs were?

MR. LEWIS: Only generally. It says a water leakage repair. I have no other material with it. I was a little annoyed when this was put in my hands, for that reason.

MR. SINCLAIR: On the steam generator?

MR. LEWIS: No.

THE CHAIRMAN: The witness referred this morning to some metal replacement or something of the kind.

MR. LEWIS: No, it was not of that sort. I am instructed that it had to do with the water system of the engine. Those

are my instructions.

BY MR. LEWIS:

Q In this connection, Mr. Woodland --

A Excuse me; I cannot quite understand how it would be a repair to a water system. Well, yes, if it was a single unit. Does it give the unit number?

Q No.

A It could be a single unit, yes.

MR. LEWIS: I should have said, Mr. Chairman, that the date of the incident, as distinct from the date of the form, was October 21, 1956.

BY MR. LEWIS:

Q In connection with repairs, you informed the Commission that while on a steam engine the engineer had a tool-box, on the diesels they were not supplied with any tool-boxes?

A That is correct.

Q Would you know, Mr. Woodland, whether in spite of that the engineers in your acquaintance do not take with them some tools in their bags?

A If they are concealed in their bags, they might have them in their bags and I would have no knowledge of them. I do know that enginemen called for diesel locomotives won't take their tool ~~bags~~ *boxes* with them.

Q I did not suggest they were concealed in their bags.

A I did not mean to say concealed; if they were carried in their bags I would have no knowledge of them.

Q I am just wondering whether you know if they carry some smaller tools with them in spite of the fact that they have no tool-box?

A On the Baldwin operation on the E & N Railway we expressly prohibited the carrying of small tools on the locomotives because we were very definitely concerned with tampering. As I said yesterday, we have not experienced too much tampering. We insisted that it not be done right from the outset and our experience has been a fairly happy one in that connection.

THE CHAIRMAN: These exhibits you have put in this afternoon, have you had them numbered?

MR. LEWIS: My difficulty is that they have names on them. I was wondering whether I could undertake to provide others.

THE CHAIRMAN: Substitute others?

MR. LEWIS: Substitute others for these.

HON. MR. McLAURIN: You can get them pretty promptly?

MR. LEWIS: Oh yes, I think so.

HON. MR. McLAURIN: We have had that experience and then they are forgotten about.

MR. LEWIS: The Canadian report can be got very promptly from the Queen's Printer right here; the American, I am instructed that might take a couple of days but we shall telephone for them.

THE CHAIRMAN: Well, I am thinking of the Board of Transport Commissioners. You have been advised in connection with your application to have access to their files that they are willing that that should be done and that they are being made available to you?

MR. LEWIS: Yes, Mr. Chairman, I have been in touch with them on the matter of time when I can look through them.

BY MR. LEWIS:

Q On the dead-man control, Mr. Woodland, I think you said you did not know of any cases where it had failed to function?

THE CHAIRMAN: Excuse me, Mr. Lewis, that letter that you wrote giving particulars of what you wanted from the Board, have you given a copy to Mr. Sinclair?

MR. LEWIS: I am pretty sure I did. The number of orders -- yes, I did, sir, at the same time that I gave it to the secretary.

THE CHAIRMAN: So that the file will be available for Mr. Sinclair as well as for ourselves?

MR. LEWIS: Yes.

THE CHAIRMAN: All right, I am sorry.

BY MR. LEWIS:

Q I think you said you had not heard of any case where a dead-man control had failed to operate, is that right?

A I said that I did not know of any instance of where a man was slumped, had had a seizure and slumped in such a position as that the dead-man control did not operate.

Q But you have known instances where it has failed to operate on inspections or in some other situations, have you?

A No, I have not.

Q In other words then you don't know of any instance in which it failed to operate?

A No.

Q Do you know anything (I asked this of a witness earlier) do you know anything about this accident that occurred on the Boston and Maine commuter train at Wilmington early last February?

A I have discussed it with people here since it was introduced, yes.

Q Would I be wrong in suggesting to you that in that case in spite of the fact that the engineer apparently went unconscious the

dead-man control did not apply and the fireman had to apply the automatic brake?

A It was equipped with a dead-man control?
I was not too sure of that.

Q I am so instructed. I am wondering whether you know about that?

A I don't know. As a matter of fact, I think I asked whether or not it had been equipped with a dead-man control. I don't know whether that appeared in the evidence or not.

Q In the evidence where?

A When you introduced it.

Q In other words, you just don't know?

A I don't know whether it was equipped with a dead-man control or not, no.

Q Now, these forms which you filed, Mr. Woodland, Exhibits 129, 129A, 130 and 131, I think you informed the Commission that Exhibits 129 and 129A apparently were forms that were never distributed in the west?

A That is correct.

Q I assume by that you mean neither in the Prairie nor the Pacific regions?

A That is right.

Q They were not distributed, in other words, west of Fort William?

A That is correct.

Q I am instructed, Mr. Woodland, that in spite of the fact that these forms were not there distributed patrolling of the

units was regularly done by firemen from the first day diesel units appeared in these regions. Is that right from your experience?

A That is correct.

Q And as a matter of fact I am instructed, Mr. Woodland, that the firemen were instructed to patrol by their relevant superior officers?

A If they were it was a misunderstanding and I could not have made myself clear because I was acting under those instructions and road foremen were to be advised -- I was acting as Inspector of Diesel Equipment, directly under the Superintendent of Motive Power...

Q Excuse me for interrupting, what years are you referring to?

A 1949 to 1955.

BY THE CHAIRMAN:

Q In both regions, Prairie and Pacific?

A Prairie and Pacific regions, Fort William to Victoria.

BY MR. LEWIS:

Q You were instructed....

A That firemen were not to be given any specific duties nor they were not to intimate to firemen that they were required to patrol units.

Q Well, Mr. Woodland, I am instructed that

you were present on occasions when a diesel instructor was present on an instruction engine, would that be right?

A That quite possibly is right.

Q That as a matter of fact you were present there in Revelstoke some years ago when the question was put to you as to whether the firemen should patrol the units and I am instructed that your answer was yes?

A I think you have been misinformed.

Q I have?

A I think so. I don't see how I could have given that answer in view of my own instructions.

Q Well, you told me it was correct that firemen in fact patrolled these units from the first day they arrived, if I remember correctly or recall my question to you. You did not want it done but did you take any steps to stop it?

A No.

Q Neither written nor oral instructions to these men to stop that patrolling until the bulletin that you referred to earlier of October, 1956?

A That is correct.

Q And I suppose the extreme danger of opening the doors of these road switchers was present as seriously in 1952, 1953, 1954 and 1955 as it was in October, 1956?

A When I had jurisdiction over the division it was definitely understood by enginemen on the Portage division that the man was not to go out when the unit was in motion and I have told them at different times that they should not expect the fireman to cross between units while it is in motion and if you will notice my reports I think you will notice the unit is patrolled only when the ^{locomotive} ~~unit~~ was stopped for train inspection.

Q And when were these instructions from you given as emphatically as you have given them here?

A Ever since I have been on the Portage division from September of 1955. You must remember, Mr. Lewis, that as ^{General Inspector} ~~Chief Instructor~~ ~~on~~ Diesel Equipment I operated in an advisory capacity. I did not have operating control of the various divisions.

Q And you are saying you were as emphatic about it in September, 1955, to September, 1956, as you have been since September, 1956, taking that dividing line roughly -- is that what you are saying?

A Yes.

Q And that was the case in the Portage division where you functioned from September, 1955?

A That is correct.

Q Now, Mr. Woodland, do you think it is

necessary when the engine crew has started the engine up, on a shop track even for anybody to make sure that all the units are loading if it is the engine or locomotive of a multiple consist?

A No, I do not.

Q You do not think that is necessary?

A That test is supposed to be made on the shop track.

Q And the engine crew taking this consist out must assume that it was done and everything is O.K.?

A That is correct.

Q As a matter of fact, Mr. Woodland, wasn't it the responsibility of the shop crew to make sure that the steam engine was in perfect condition before it was taken off the shop track?

A That is right.

Q And that situation, wasn't it your practice and demand that the engine crew inspected the steam engine before it was taken off?

A The engineer had some duties to perform too. There were some parts in the older types of power, some parts that required lubrication and which he was expected to lubricate.

BY MR. SINCLAIR:

Q Would you speak up, Mr. Woodland. With Mr. Lewis getting in that box it makes it

difficult to hear here and for the Commission.

A Yes.

BY MR. LEWIS:

Q Wasn't the shop staff supposed to do all the lubrication and all the other details in connection with the steam engine before it was taken off the shop track?

A No.

Q Well what particular thing on the steam engine did the shop staff not have to do?

A Well, the engineer used to lubricate the cross-head guides, he used to lubricate the valve guides, he would lubricate -- he might run his feeder over the boxes. I am not completely familiar with what he used to do in itemized detail.

Q But in general, aside from these, do you say -- and I am instructed correctly -- these lubricating chores which the engineer did, in general outside of those your shop staff was supposed to see to it that the engine was turned out in ship-shape condition?

A That is correct.

Q And in spite of that you required, did you not, the engine crew, the engineer and fireman to make a thorough check of the engine not merely these lubricating chores you have just indicated but a thorough check of the engine?

A That is right.

Q. Now, tell me why it is no longer necessary in your opinion and in your Company's opinion for the engine crew now to do what general rule M -- if my memory serves me right -- in Exhibit 27 requires -- yes, it is M?

MR. SINCLAIR: I take it that my friend is prepared to argue the way he put that question to the witness that that is the correct application of rule M.

THE CHAIRMAN: Presumably.

MR. LEWIS: Certainly I am.

BY MR. LEWIS:

Q. The second sentence:

"They must observe the condition of equipment and the tools which they use in performing their duties and when found defective will, if practicable, put them in safe condition, reporting defects to the proper authority."

A. I think, Mr. Lewis, we have to make some allowance for change both in method and practice. The diesel locomotive, you know, has under-gear suspension, ^{and running gear lubrication, in 21} suspension bearing boxes ^{and} in the gear case. The roller bearing boxes are filled with oil. It would be very impractical, I think you would agree, for us to suggest that locomotive engineers check that lubrication

and that lubrication is, if anything, more important than the lubrication of the engine.

Q. In other words, do I understand you correctly to say that the diesel engine is so constructed and maintained by you that there would not be any purpose in this inspection by the engine crew, they should just accept that the shop staff has done all that is necessary to be done?

A. That is correct.

Q. Now, I notice, Mr. Woodland -- I can't remember whether my learned friend Mr. Sinclair used these words or you did -- a statement that Exhibits 129, 129A and 130 were firemen's forms and 131 is the engineman's form. There is nothing on Exhibit 130 to suggest it is a fireman's form, is there?

MR. SINCLAIR: You are quite right, they were my words and not the witness' and I am prepared to argue it if you wish.

HON. MR. MARTINEAU: On, you say, 130?

MR. LEWIS: Yes, 130 and I am asking the witness there is nothing in Exhibit 130 to say that it is a fireman's form except for the signature at the bottom.

BY MR. LEWIS:

Q. Is that what made you call it that?

A. No, it was my general understanding that this was a form which superceded the earlier form which had as its third page a very similar set-up.

Q. And it says so. Now, this form MP-74, do you know when it was started or did you tell us? It was December, 1955 -- that is what it says on it?

A. That is the printing date on the form.

Q. Well, it says "Revised December, 1955". Would you know what it was that was revised at that time?

A. Not unless that refers to a revision of the MP-74 which we had had for years and which was contained in book form. I would not know anything beyond that.

Q. You don't know what it was that had been revised?

A. This is the first issue of anything similar to this that I had seen, yes.

Q. It would not be a revision, for example, of MP-604, Exhibit 130?

A. No, the forms are completely different in nature and intent.

Q. Now, actually, Mr. Woodland, even though Exhibit 131 does not contain the details of the inspection order performed which you find, say, on Exhibit 130, isn't that the general nature of the observation you want the engineman to make and record on

Exhibit 131?

A. No.

Q. Well, is there any practice much different between the two?

A. Oh yes, considerably.

Q. What is it?

A. Well, we do not require recording of lubricating oil pressure, fuel oil pressure, turbo charger air pressure -- that is peculiar to one type of locomotive, the Alco -- cooling water temperature -- the entire bottom part which can only be used with Alco locomotives is not required on this form.

Q. But if any irregularity occurred with regard to any of the things which are applicable to all locomotives which are in 130 then these irregularities would be noted on form MP-74, Exhibit 131, is that right?

A. Whether or not there are any irregularities the recording of the trip must be made on this form as such.

Q. So that in actual practice in the watching of the locomotive and the recording of defects and so on there is not really, is there, very much difference between the intention of MP-74, Exhibit 131 and the intention of Exhibit 130?

A. I think there is a very marked difference.

This form

Q. Being what?

BY THE CHAIRMAN:

Q. What is "this form"?

A. MP-74, Exhibit 131, definitely replaces a form which has been in use on railroads for years and years and which had the same number, MP-74. It is an engineman's trip report. The only reason that this form to my knowledge would provide information of this type ...

BY MR. LEWIS:

Q. "This form" being what?

A. MP-74.

Q. Exhibit 131?

A. Yes -- was to give the base maintenance point a running record of the work that was done during the long period the locomotive could be away from its home base.

Q. Is there not -- and I think you indicated it in one of your answers -- isn't there a general order of the Board of Transport Commissioners requiring inspection at the end of each trip or day?

A. It says that on the form, yes.

Q. It says what?

A. "Each steam locomotive or diesel unit must be inspected after each trip or day's work and a report

made on this form, whether repairs
are required or not."

Q. And I am suggesting to you that is a
requirement of the Board of Transport
Commissioners. As a matter of fact, you
may or may not have seen it, it is General
Order 289 dated 24 March 1920. Do you
know of it?

A. I was aware that such a Board Order existed,
yes.

Q. Requiring just what the first sentence on
the back of MP-74 states?

A. That is correct, yes.

THE CHAIRMAN: It was said when
Exhibit 131 was put in that this was a form
required by the Board of Transport Commissioners.

MR. LEWIS: I thought he said something
like that, I think he said required by the
Board of Transport Commissioners.

THE CHAIRMAN: May I interrupt just
for a moment. There is an answer bothering me
that I did not quite get. Mr. Reporter, would
you go back a page or two and then read?

THE REPORTER: (Reading)

"A. MP-74, Exhibit 131, definitely
replaced a form which has been in
use on railroads for years and years..."

THE CHAIRMAN: It is farther back than
that.

THE REPORTER: (Reading)

1870

1871

1872

1873

1874

1875

1876

1877

1878

1879

1880

1881

1882

"Q. And if any irregularity occurred with regard to any of the things which are applicable to all locomotives which are in 130 then these irregularities would be noted on form MP-74, Exhibit 131, is that right?

A. Whether or not there are any irregularities the recording of the trip must be made on this form as such.

Q. So that in actual practice in the watching of the locomotive and the recording of defects and so on there is not really, is there, very much difference between the intention of MP-74, Exhibit 131, and the intention of Exhibit 130?

A. I think there is a very marked difference...."

BY THE CHAIRMAN:

Q. What I had in mind, Mr. Woodland, from something you said before was that Exhibit 131 would be filled up whether any irregularity had occurred or repairs were required or not, is that what you said?

A. That is what I said, yes.

Q. In the event of there being nothing of the kind how would it be filled up?

A. It would be just filled "departure date, arrival date and time" and the engineer's signature on the back of the form.

Q. And no other comment about operation or anything like that?

A. It is generally the practice for them to say "everything okay" or "units okay" or something like that.

BY MR. LEWIS:

Q. And this inspection which you make or have somebody make at the end of each trip or at the end of a day -- I apologize to you, Mr. Chairman and the witness -- would you mind telling me again exactly what the extent of that inspection is at the end of a trip, is there any by any one other than the engineer?

A. A trip, as we define it, is the return of a locomotive to its maintenance base.

Q. That means in the present term the return of the locomotive to what, Ogden?

A. Let us say that a unit leaves Calgary and it goes directly through to Winnipeg. It is turned around at Winnipeg. This means a turn-around inspection. It arrives back in Calgary. It has now completed 1700 miles and it is given a trip inspection by the forces at Calgary.

BY THE CHAIRMAN:

Q. When it gets home again?

A. When it gets home again.

BY MR. LEWIS:

Q. So that your present interpretation of the word "trip" in General Order 289 of the Board of Transport Commissioners is just that?

A. That is correct.

Q. From Calgary to Winnipeg and back again?

A. That is correct.

Q. My thought may be silly to you but are you likely to have these go from Calgary as far east as Fort William and back again?

A. That could conceivably happen.

Q. And that still would be a trip within the terms of the General Order?

A. That is right, as I understand it.

Q. So the total of that mileage might be what?

A. Another 900 miles making it 2600 or 2700 miles total.

Q. And it is your interpretation now, is it, that the requirements of the General Order are met by the trip being interpreted in that way, getting back to the base point?

A. That is my understanding, yes.

BY THE CHAIRMAN:

Q. Well, what do you do with the language you have on Exhibit 131 at the top:

"Each steam locomotive or diesel unit must be inspected after each trip or day's work"?

A. Well, a day's work could conceivably mean a yard engine. This form is also required for yard engines and, as I said, though it is not carried on the engine it is maintained at the booking-in desk where the engineman will ^{make} ~~take~~ his record of trip.

THE CHAIRMAN: All right, we will break for a few minutes.

--- Recess.

BY MR. LEWIS:

Q. Mr. Woodland, when I was speaking to you about the age of diesels affecting their serviceability I intended to quote to you a sentence from Exhibit 135, the "Interstate Commerce Commission's annual report for 1956 and ask your comment on it and forgot at the time. On page two about the middle of the page -- for the record and so that the members of the Commission can find it easier -- there is this paragraph:

"The number of locomotives found defective, the number of defects found, the number of inspected found defective and any number

ordered out of service is a reflection of the deterioration resulting from increasing age of the now predominating diesel power."

That is the statement of the Interstate Commerce Commission. What is your comment?

A. I cannot do other than say that that does not meet with my experience.

Q. Then, in Exhibit 134, the 1955 I.C.C. report on page eight of that Exhibit this paragraph occurs, the first full paragraph on the page:

"20 accidents occurred because of defective conditions of floors, spaces and passageways. Accumulation of oil upon walking surfaces was responsible for the majority of these accidents because each oil leak whereby oil is deposited on the steel walkways is a potential source of a disabling accident. Our inspectors have been instructed to give particular attention to this type of defect which is prevalent on some railways."

Now, do you have leakage of oil making walkways and steps, decks and so forth in your engines hazardous?

- A. That, of course, in the first instance would apply only to the car body type of unit and the oil leakage in and around an engine can be taken as some gauge of the maintenance again. I cannot say that we do not have oil on walkways on occasion but I don't think it indicates an increasing age or deterioration through advancing age.
- Q. But I don't think it indicates advancing age or deterioration through advancing age and we are constantly combatting it as are the manufacturers by what they consider to be improved methods of sealing and so on.
- Q. Would it indicate an advantage in patrolling to make sure whether or not there are oil leaks and where they are occurring?
- A. No, I don't think it would because any oil leak that has occurred from seepage which, as I have suggested, would be slight could not be repaired in any event.
- Q. Couldn't be repaired en route?
- A. En route.
- Q. Not even the rough kind of repair that I understand engineers have made with pipes and so on all through the years on steam power?
- A. Well, as I explained, the piping is

considerably different. We use soldered joints. If you have not the means to repair these soldered joints and they crack you are beaten and the same thing applies to the type of fittings that we use and in my experience pipe leakages at other than gasketed joints are a rare occurrence.

Q. If you had leakage through seepage, for example, at the gaskets and at the joints and it was running down to where it could become dangerous for people walking I suppose someone who learns about it could do as each one of us has sometimes done at home, just take a rag and wrap it around?

A. Not around the crank case inspection door. You could throw a rag at the base of the leak which would sop up the leak. At turn-around points or even at sub-division terminals if there was a condition like that prevalent we would put somebody in to mop up the floor if it warranted it. For your information we did have for a short time one type of engine which through a design misadventure, say, caused pressurization of the crank case which would throw oil through the bayonet gauge hole.

Any time we have anything like that

occur we immediately undertake a campaign to overcome it. This was a major effort. We couldn't do it in a day and we couldn't do it in a week but at some considerable expense to ourselves we remedied the defect which was internal in the engine.

Q. All I am suggesting to you is that while this goes on and while the engine is running if you learned about the leak the engineer and the fireman could prevent some of it?

A. Not in the instance I have cited to you. It was oil being pumped out of the bayonet gauge hole.

Q. But if it was something less than that you still think it would be of no use?

A. Possibly the best way I can answer that is that it is not done.

Q. You said the question of the possibility of fire is a very narrow and limited one, is that right?

A. Yes.

Q. In fact, so narrow and limited you say that there is no need to worry about it at all?

A. Yes sir.

Q. And I think you said you never knew of one from your own experience?

A. I don't recall ever having been on a locomotive where there was a fire, no.

Q. Have you ever been on a locomotive when there has been a crank case explosion?

A. No.

Q. I think you have been here throughout the sittings and know that Mr. Sinclair at my request has been good enough to look up the record of fires, if I recall.

MR. SINCLAIR: That is correct.

MR. LEWIS: But perhaps as you have not had any personal experience I can leave that.

MR. SINCLAIR: Part of the information we have got was given by this witness on fire prevention and insurance and I think he said there were four fires and that is information that he is giving.

BY MR. LEWIS:

Q. Do you know anything about those four or five fires, do you know whether any one was endangered or anything of that sort?

A. No I don't.

Q. And you are supplied -- I think you referred to it -- your engines are all supplied with fire extinguishers, is that not correct?

A. That is correct.

Q. Whether it has been brought out in evidence I don't know but do you have a fire extinguisher in each unit of a multiple consist or one for the multiple?

A. One in each unit.

Q. I suppose it is rather obvious, isn't it that if you have a fire extinguisher the manufacturer and you anticipate the possibility of a fire?

A. You would naturally assume so, yes.

Q. You are merely saying that in your experience it has so far not occurred very often, in fact in your experience not at all?

A. That is correct. I have seen a locomotive which had a local fire, as I said, in the cam switch which I would not describe as a fire because I am familiar with electrical equipment. I would say it was overheating of the equipment which caused insulation breakdown and charring but I have never seen a fire other than that.

Q. I don't know anything about it, Mr. Woodland, I am sorry. Were you not finished?

A. I was just going to say I did not see that one; I saw the results of that immediately after it occurred.

Q. I don't know anything about it. If **this thing**, in the cam switch, **this** charring and smoking, I suppose, and so on were not caught in time was there any chance of an explosion or anything

like that in that particular location?

A. No.

Q. But are there places where an explosion might result from that kind of electrical failure or difficulty?

A. No.

Q. Nowhere on the engine?

--

--

--

--

A The engine is drawing tremendous quantities of air. There could be no pockets or accumulation of gases or anything like that that could collect to cause an explosion. As I say, the intake of air to the engine is terrific.

Q Would that be true of the ~~crank~~ case too?

A A crank case explosion is confined within the engine and generally there are two explosions.....

Q Usually there are what?

A Usually there are what are called a primary and secondary explosion.

Q I have been instructed you could have such a thing as an electrical fire in an engine compartment or a fire caused by a short circuit sometimes, could you not?

A Yes, that is correct.

Q That is what I meant when I said could you not have fires or -- was it explosions I was asking you -- you could have fires resulting from some kind of electrical defect?

A That is correct.

BY THE CHAIRMAN:

Q Are those the fires you spoke about that would be confined to the cabinet?

A That is correct.

BY MR. LEWIS:

Q And if you discovered that kind of fire

early enough you might be able to extinguish it before it did some harm, that is obvious, isn't it?

A The earlier you discover a fire the sooner you would lessen the damage but the wiring generally is formed in what is known as harnesses and it runs from one place in the engine to ^{another} quite some distance away. Once that harness is damaged the entire harness is replaced because it is poor practice to make ^{joint} joins in that type of a circuit.

Q You made a statement on road switchers, that they could not be patrolled. That is what I have got down. Actually what I have got down is "controlled" but I am sure I meant to put down "patrol". Is that right?

A To patrol a road switcher you would have to go out on the walk-way, open the doors and look in to the engine room. If you were going to check the oil level you would have to open the centre door. If you were going to check the water level you would have to open the end doors and I think it is agreed that that just is not being done.

Q What do you mean not being done -- by anybody?

A When the unit is in motion.

Q When the unit is in motion?

A That is correct.

BY THE CHAIRMAN:

Q I suppose you mean from the standpoint of safety?

A From the standpoint of safety, yes.

BY MR. LEWIS:

Q Do you mean that it is not now being done or do you mean that you disapprove of its being done?

A Well, for the past two years I have been confined to the Portage division but I understood generally that we would not tolerate anyone walking between units while they were in motion. I think, sir, you will find that enginemen as a general rule feel a responsibility for a fireman and I am sure in most instances you will find they would not ask him to go back.

Q Do you know whether it is not done? I just

A want to get the record straight on that. You say they cannot be patrolled. I am instructed -- as a matter of fact, Mr. Chairman, I didn't have time but if my memory is not playing me tricks I think some of the trip reports put in by the witnesses thus far say that in motion inspections have been made on road switchers. Do you know that just is not so? That is what I am after.

A I can't speak for other divisions on the territory, no.

Q Now, you gave assort of the time when you became fully aware of the difficulty of opening these doors on the road switchers your own experience?

A That is correct.

Q I think it was yesterday you said in the case of your own experience you were moving about 40 miles an hour and there was a northwest wind, if I remember right, and that that almost threw you off?

A That is right.

Q Would you say if the engine were moving at 20 miles an hour instead of 40 miles an hour and there was not a very strong wind that the danger would still be very great?

A The danger would be considerably reduced.

Q I suppose you would agree that both the engineman and the fireman would not go out normally under the conditions under which you tried to get into that engine at the time -- they would not normally try to do it?

A No, they would not, no.

Q If the engineman sent the fireman back for something I suppose he would have sense enough to slow down some?

A That is, I believe, what they would do.

Q And if there was a very strong wind the fireman would not go out and the engine-man would not require him to?

A I would presume that is so.

Q Just one more question with regard to what you consider to be a trip. It was suggested to me, Mr. Woodland, during the recess a few minutes ago that there are some engines that would go out on duty working between one point or another away from home base and they would not get back at all until their 6,000-mile inspection came. Would that be right?

A That is right.

Q So that in their case a trip would be 6,000 miles?

A That is right.

MR. LEWIS: That is all, Mr. Chairman.
Thank you.

MR. SINCLAIR: Just one question in re-examination arising out of the last question of my friend.

BY MR. SINCLAIR:

Q If a diesel locomotive was going to be out for 6,000 miles before it came in for its trip inspection would it or would it not, Mr. Woodland, have received a turn-around inspection?

A It certainly would have received a turn-around inspection.

Q And that turn-around inspection is conducted by whom?

A By maintenance forces.

BY MR. MUNDELL:

Q Could I ask one or two questions, Mr. Chairman? These are probably in the category of the idiot putting questions from a lack of information. How do you start a diesel engine?

A The diesel engine is started by using the main generator as a motor. It, as you know, is direct connected to the crank shaft of the engine and by pressing a button you close the contact~~ors~~ between the battery and the starting windings on the generator. The generator revolves and cranks the engine in exactly the same way as your starter motor does in your automobile with the exception it is direct connected instead of geared.

Q It is a battery starter?

A It is a battery starter. We don't use air starters.

Q On coming to the question of brakes I understand there is a reservoir in each car?

A That is correct.

Q That is, a reservoir of compressed air?

A That is correct.

Q And that there is a train line which is filled with air from the engine?

A That is correct.

Q As long as the train line is full the brakes do not go on?

A That is right.

Q It is rather the reverse of a hydraulic brake in a car where you put pressure on the fluid; in the case of a train you take the air pressure off the train line and the brakes go on?

A That is right. And that perhaps is important because it makes for greater safety.

Q When you want to put the pressure back you fill the train line again?

A That is right.

Q How long does it take for the train line to fill again?

A Well, on an exceptionally long train to ensure that the train line is filled and that the brakes have released on the tail end we will instruct people that you wait possibly three to five minutes to allow that. It will depend upon how good a train line you have. If there are numerous leaks in it it would take longer but roughly it would take three to five minutes.

Q Is a brake test done by the engineer taking over on a running through train?

A Yes.

Q So that would be part of his preparatory work?

A That is right.

Q So that would be part of his preparatory work?

A That is right.

Q Or would that be after?

A No, that is part of his preparatory duties. He must make a brake test.

Q Which may run as high as five minutes?

A In a terminal where the engineer is putting the engine on the train normally the train line will be charged by the yard plant and in making this reduction it might take him -- I was thinking particularly of the passenger train in a passenger depot. In most cases the brake test -- in all cases the brake test on a freight train would occur outside the preparatory time. It would occur after the shop track.

Q That is why I chose a running through train. There would not be any initial terminal time on a run through train, would there? There is just the preparatory arbitrary, is that right?

A That is right.

Q So that that brake testing would come into the arbitrary or is that road time?

A That depends a good deal -- the man would be called for a certain time and it could be within and it could be without the preparatory time. That is not a very satisfactory answer, I know.

Q When does his road time at a run through point start?

A At the time for which the train was ordered.

BY HON. MR. McLAURIN:

Q The time he leaves the terminal?

A No, he is ordered for a certain time, let us say, it is 8:30 and his preparatory time starts before 8:30. Any time after 8:30 is initial terminal time.

BY MR. MUNDELL:

Q On a run through?

A On a run through the same as on any other train.

Q He gets it from there to the main switch, does he?

A Yes.

Q Then it might be either on the arbitrary or it might be on the initial terminal time?

A I would say in most cases it would be on the initial terminal time.

Q Then, there are these two terms I want to get straight. What is a tangent track?

A Straight track.

Q That is why I was puzzled.

THE CHAIRMAN: That was explained.

MR. MUNDELL: I am sorry, I was
absent, I guess.

BY MR. MUNDELL:

Q What is a relay? You were using the
term relay in a general sense this after-
noon as opposed to some of the more
specialized forms?

A A relay is an electrical device which
transmits or relays a signal. It usually
consists of an electromagnet. When the
coil of the electromagnet is energized the
relay cuts in and will establish a **contact**
with the circuit immediately affecting the
governor. It is really a remotely con-
trolled switch.

THE CHAIRMAN: Thank you.

--

--

--

JOHN JAMES YOUNGS, recalled.

EXAMINED BY MR. LEWIS:

Q Mr. Youngs, I think there is one point that I can perhaps cover with you before adjournment at 4.00 o'clock. If you would be good enough to turn to Exhibit 128, that is, the exhibit of your trip records?

A Yes.

Q Would you be good enough to turn to pages 16 and 17? By the way, on page 16, I may be wrong about this but it seemed to me that the word "not" was missing. Under "Duties during switching operation of the fireman", at the end of that you have "Test water-glass and try cocks to see they were full of scale."

A Free of scale.

Q Then you don't need the "not"?

A Free of scale.

Q I read it "full of scale"?

A No, "free of scale."

Q Now, on page 16 you make the statement that the fireman over 35 per cent of the time while running his attention was on the stoker, the steam gauge and blowing down the boiler, testing water-glass and try cocks to see they were free of scale, and similarly on page 17 you say that he was over 30 per cent of his time



checking stoker and boiler appliances?

A Yes, sir.

Q How did you get to those averages of 35 per cent -- not averages, really, how did you get to the percentages, 35 per cent in the case of page 16 and over 30 per cent on page 17?

A Just taking the length of time we were on the road doing that trip, the amount of the time that he was down on the deck of the cab at different periods of time.

Q He was down on the deck, you say?

A Yes, that is correct. Also when he was on his seat looking at the gauges, looking at the flow of coal through the stoker peep holes on the conveyor distributor.

Q You are telling me in fact, are you, Mr. Youngs, that every time he glanced at one of the gadgets -- I will come to them later -- you made a note of the time it took?

A Not on that particular trip, no, sir.

Q Pardon?

A Not on that particular trip I did not.

Q Then, how did you arrive at "over 35 per cent"?

A I would not take my watch out each time he glanced at a gauge, but I would take the watch out each time he got on the deck of the cab, two, three and four

minutes at a time.

Q Did you write down the times he took each time he went out on the deck?

A What do you mean "out on the deck"? All he had to do was step off his seat.

Q On the deck, I am sorry.

A I did at the time, yes.

Q What percentage of the time was he actually on the deck?

A Well, I figured around 10 per cent to 15 per cent of the time actually on the deck and then I made a rough average of the time that it took him looking at his gauges and looking at his water-glass.

Q Exhibit 92 --

MR. SINCLAIR: Is this 5181?

MR. LEWIS: Yes, 5181.

BY MR. LEWIS:

Q Would the photograph, Exhibit 92, of the interior of the left side of the cab in engine 5181 represent fairly accurately the left-hand interior of engine 5459 on 16, and 5456 on 17?

A Just about the same, yes.

Q These stoker and boiler appliances that you refer to in 16 and 17, are most of them shown right there in that photograph?

A Yes, the water-glasses are right here (indicating) and on the other side you have your try cocks. They are not shown.



Q The try cocks are where?

A They are further over on the right-hand side.

Q They are, as a matter of fact, by the engineer, actually?

A Well, actually no, they are between the throttle gland and the engineer's side -- just about half-way down.

Q They are actually closer to the engineer than the fireman?

A They are actually closer to the engineer than they are to the fireman, yes.

Q And when you say he was 10 to 15 per cent of his time on the deck (I will come back to that in a moment) and then you average you came to the conclusion in the case of 16 that he was 20 per cent more, in fact 20 to 25 per cent of his time watching these gauges and things, is that right?

A That is right, that is what I said.

Q 20 to 25 per cent of his time, is that right?

A Well, I said 35 per cent, didn't I?

Q You said over 35 per cent total and then you told me it was between 10 and 15 per cent on the deck?

A Actually on the deck, yes.

Q Therefore, he must have been between 20 and 25 per cent --

A Looking at his gauges, looking at his

water-glass --

Q All of which things are right in front of him, is that right?

A They are in front of him, yes.

Q There is the water-glass and to the right of photograph 92 the stoker gauges, almost right opposite him where he sits -- right?

A That is correct, yes.

Q And the flood valves and all the other valves which he controls, all in front of him as he sits and looks through the window?

A Yes, he would not be looking through the window when he is looking at the gauges. He has his head down this way (indicating).

Q For example, the boiler pressure gauge up there towards the top of Exhibit 92 --

A Your main steam gauge?

Q Boiler pressure gauge?

A Yes, the boiler pressure gauge. That is offset, he could not be looking out the window and looking at it too.

Q Well, there is a needle there?

A That is right, that indicates the boiler pressure.

Q And would he do more than just throw his eyes over at that and back again?

A He would just move his head over and back again. I have did it myself many

and many a time.

Q And you just picked up your head, looked at it and back again?

A Yes.

Q You see it in a flash, don't you?

A Well, you can see it.

Q Literally in a flash, isn't that right?

A I would not say in a flash. You just put your eyes over, watch the gauge hand and then you regulate your fire according to the supply of steam that is necessary the way the engineer is working the engine. If you see the steam shows going down which happens to be a heavy train on that territory on which the steam pressure was fluctuating quite a bit and that made him quite concerned about his steam pressure, more so with me on there probably than he would have been otherwise.

BY THE CHAIRMAN:

Q You said if he saw that. Suppose he did see that what would he do?

A What do you mean?

Q That the steam pressure was going down?

A It meant he had to get busy on his stoker and make sure his fire was O.K. and get his fire cleaned up and brightened up to produce steam for the engineer.

BY MR. LEWIS:

Q And that would mean, Mr. Youngs, that he

would adjust one of the stoker distributing valves, I suppose?

A Well, in that particular instance he got down on the deck, shut his stoker valve off, let the fire brighten up and then looked in the fire-box to see that he had no banks, see that his fire was burning level and clear and then he took the poker several times and there was a bank in the back and he shook it two or three times.

Q That is within the 10 to 15 per cent that he was on the deck?

A Yes.

Q I am dealing with this quarter of the man's time that you said he took doing these other things -- glancing at these gauges. If he saw this boiler pressure gauge a little under all it would mean is that he would just adjust one of the stoker distributing valves, is that right?

A Not particularly, no. If his steam pressure is going down he is either not supplying sufficient coal or if there is sufficient coal going into the fire-box to make that steam then there is something wrong in the fire-box and he is not getting an even distribution.

Q Then he would go on the deck?

A Yes, and then it could be that his

distributing plate wing for that particular engine, this one here, he would have his wings to adjust, to get an even distribution of the coal in the fire-box and there were a couple of times he supplemented the fire by shovelling.

Q And he would go on the deck?

A Yes.

Q And if he supplemented the fire with the shovel he would also go on the deck?

A Yes.

Q And that would come in your estimate of 10 to 15 per cent of the time he was on the deck?

A That is right.

Q I want you to justify and I am asking you to justify, Mr. Youngs, your time that this man spent between 20 and 25 per cent of his time not on the deck?

A Not on the deck?

Q The time he spent looking at these various gadgets in front of him?

A The only way I can justify that is by estimating the amount of time. I did not take my watch out and I could only guess and check him or time him by the amount of time he was checking his water-glass, blowing down his water-glass mountains and adjusting his valves and his eyes were not on the forward lookout.

That is what you mean?

Q That is what you intended to convey,
isn't it?

A Yes.

Q You intended to convey that in addition
to the 10 to 15 per cent he was on the
deck he spent 20 to 25 per cent watching
all these things?

A Watching the flow of coal through the
stoker peep holes, coming out onto the
distributor plate.

Q During which time he couldn't be on the
lookout?

A That is right.

Q And the same thing on page 17. What
was your estimate on that --

BY THE CHAIRMAN:

Q Before we leave that, when he looked at
any one of these gauges and saw something
that required him to do something did
that mean that every time he had to go
down to the deck to do something or could
he do that something from his seat?

A Not necessarily, sir. If he was not
giving it enough coal then he adjusted
his stoker valve to give it a little more
coal.

Q Would he go on the deck for that?

A No, sir.

Q Well, that is what you have been asked,

to explain what he would do as a result of seeing anything on these gauges that did not take him on the deck because you have told the amount of time he was on the deck. That is what you are being asked for.

A But I also explained too that the rest of the time would be taken up checking his gauges and he has to blow his water-glass out ~~glasses up~~ periodically every 20 or 25 miles.

BY HON. MR. MARTINEAU:

Q But after looking at the gauges wasn't he looking outside?

A That is right.

Q It would take him only a second or two to look at a gauge and then again to look out the window?

A He looks over the gauge, his pressure gauge, then looks at his water. It only takes a few seconds.

Q Couldn't he look out in the meantime?

A Yes, in between he did look out.

BY MR. LEWIS:

Q I will put it to you this way: on page 16, Mr. Youngs, this train left the engine terminal at 3.45 and arrived at the final terminal at 9.42, which is 5 hours and 57 minutes -- right?

A That is correct.

Q And your suggestion is that he spent between 1 hour and 12 minutes and 1 hour and 15 minutes, if my arithmetic is correct, looking at these gauges and things during that trip?

A Yes, and taking his eyes off the road, checking his stoker, flow of coal going through his stoker.

Q And that was your estimate without ever looking at your watch when he did this?

A No.

Q You did not look at your watch?

A No, I did not look at my watch at these particular times.

Q Did you count the number of times he looked at these gauges?

A No, I did not.

Q Well, how did you arrive at the estimate?

A Well, I arrived at the estimate of time a few minutes going up between different stations that he would take that time and on the over-all run it would be approximately 30 to 35 per cent of the time occupied.

Q What I am asking you is, how you could arrive at that time, what did you do if you did not look at your watch or count the number of times he looked at the gauges, how did you make up that time?

A I made a rough estimate out of my mind

of the amount of time it took to go over the road and the amount of time he took between stations to look at the water-glass, blowing down his try cocks and looking at his fire.

Q That was a rough estimate out of your mind?

A Yes.

BY THE CHAIRMAN:

Q What I would like to understand, so that I am sure I understand your evidence, is, the fireman was not on the deck but on his seat and he looks at a gauge. Now, before he does anything or before he looks at another gauge is your evidence that he then looks out the window?

A Yes, after he looked at the gauges and looked to see if everything was all right --

Q If you would just listen to my question. The fireman looks at a gauge. I am talking about what you saw. He looked at a gauge. Then, before he does anything or looks at any other gauge or anything else did he then look out?

A Looked out the window.

Q Every time?

A Yes.

Q So that these things that totalled up to 20 to 25 per cent --

A That is what I --

Q Would you listen to the question before you answer? These things that totalled up to 20 or 25 per cent were additions of momentarily looking at a gauge or something and looking out the window, is that it?

A That is right.

Q That is your answer?

A That was my answer.

MR. LEWIS: Is this an appropriate time to adjourn, Mr. Chairman?

THE CHAIRMAN: Yes. Same time.

---At 4.00 p.m. the Commission adjourned
until 10.00 a.m. Wednesday, April 10, 1957.

Amended July

**ROYAL COMMISSION ON EMPLOYMENT OF FIREMEN
ON DIESEL LOCOMOTIVES IN FREIGHT AND YARD
SERVICE ON THE CANADIAN PACIFIC RAILWAY**

26

PROCEEDINGS

DATE: April 10 1957

PLACE: Ottawa, Ont.

PAGES: 3427 - 3591

VOLUME: 26

E. L. FEATHERSTON
SHORTHAND REPORTER
241 MANOR AVENUE
ROCKCLIFFE PARK
OTTAWA, CANADA

Mr. Hughes

- A -

ERRATA

Please make the following corrections
in the volumes and pages indicated.

<u>Page</u>	<u>Line</u>	<u>Now reads</u>	<u>Should read</u>
<u>Volume 5</u>			
✓577	6-7	international comite chemin de fer, in Paris	the Union Internationale des Chemin de Fer, in Paris
	9	also a member of the mechanical	also an affiliate member of the mechanical
580	20	motor	motive
581	28	I noticed that your count on the C.P.R.	I noticed that your count on the C.P.R. is double; accord
586	8	So far as the number of cars on freight	The average number of cars on freight
594	14	The driver sits, as a rule, on the left- hand	The driver sits, as a rule, on the right-hand
	16	on the right-hand side. There is dual control	on the left- hand side. There is dual control
599	11	control	controlled
610	25	They are members of the general labour union	They are members of the general labour union
622	19-20	hand we try to reduce tariff costs to the extreme as much as possible	hand we try to reduce operation costs as much as possible
✓624	15	this develops very fast in the	this develops very often in the
	19-20	responsible for moving all his shunting operation	responsible for all movements during the shunting operation

ERRATA

<u>Page</u>	<u>Line</u>	<u>Now reads</u>	<u>Should read</u>
<u>Volume 6</u>			
630	12	rolling stock and repair shops	rolling stock and workshops
✓ 639	3	that is the ten thousandth loco- motive	that is the thousandth loco- motive
655	21-22	and the third track, et cetera, the third cut going on track so and so	and the third cut going on track so and so, et cetera.
<u>Volume 20</u>			
2659	11	Ayliff	Alyth
<u>Volume 21</u>			
✓ 2820	8	aid	"A"
✓ 2834	23	at the	empty
/ 2775	8	"fi"	"firing"
✓ 2810	12	1	delete
<u>Volume 22</u>			
✓ 2850	8	make	made
2854	17	the	these
✓ 2859	26	certain certain	delete one "certain"
2862	12	fireman	foreman
✓ 2878	22	Gleishen	Gleichen
2878	24	checked water	drained water
2879	17	three	through
2890	20	the	these
✓ 2921	7	not	delete

I N D E X

WITNESSES:

YOUNGS, John James	
Exam. by Mr. Lewis	.... 3430
O'BRIEN, Leo Leonard	
Exam. by Mr. Sinclair	... 3476
McCLEAN, James K	
Exam. by Mr. Sinclair	... 3553

EXHIBITS:

No. 128(16-A)	Photostated copy of page from witness' private notebook filed as appendix to Exhibit 128	.... 3443
128(16-B)	Typewritten and photostated copy of private notes of witness filed as appendix to Exhibit 128..	3444
138 -	Statement of miles travelled on diesel units and alarms recorded by L.L. O'Brien, 1956	.... 3479
139 -	Trip record by L.L.O'Brien	3482
140 -	Bulletin as above, file No. 437, Smiths Falls division, Bulletin No.187..	3517
141 -	Bulletin No. 20, Smiths Falls division, File 437, dated February 5, 1957	.... 3518
114A -	Bulletin No. 255, Smiths Falls division	.... 3532
142 -	Details of firemen hirings, Smiths Falls division	.... 3537
143 -	Memorandum concerning method of payment for firemen	.... 3545
144 -	Memorandum on elevator clearances	.... 3543
145 -	Statement of miles travelled on diesel units and alarms recorded	.... 3557
146 -	Trip record of J.K.McClean consisting of 44 pages	.... 3575

ROYAL COMMISSION ON EMPLOYMENT OF
FIREMEN ON DIESEL LOCOMOTIVES IN
FREIGHT AND YARD SERVICE ON THE
CANADIAN PACIFIC RAILWAY

Proceedings of public
hearing held at Ottawa,
Ontario, Wednesday,
April 10, 1957.

PRESENT:

Hon. R.L. Kellock,	Chairman
Hon. C.C. McLaurin,	Member
Hon. Jean Martineau,	Member
Douglas M. Fraser,	Secretary
A.R. Winship,	Asst. Secretary

APPEARANCES:

D.W. Mundell, Q.C.,	Representing the
C.J.A. Hughes, Q.C.,	Commission
I.D. Sinclair,	Representing the
Allan Findlay,	Canadian Pacific
	Railway Company
David Lewis,	Representing the
	Brotherhood of
	Locomotive Firemen
	and Enginemen

Wednesday,
April 10, 1957.

26th DAY

MORNING SESSION

---The Commission resumed at 10.00 a.m.

JOHN JAMES YOUNGS, recalled.

THE CHAIRMAN: Mr. Lewis, in connection with files of the Board of Transport Commissioners which you asked for, I have a letter this morning from the Chairman. I intended to bring it with me and I have sent for it, but I can tell you what it says. As I mentioned to you yesterday, the files are available there. They are quite voluminous. In connection with your request that you might want to make exhibits of some, while they do not want the originals to get out of their possession they say that if you will indicate what ones you want in that connection the Chairman will have them photostated.

MR. LEWIS: I suppose that would apply to parts of them as well?

THE CHAIRMAN: I suppose so.

MR. SINCLAIR: Just before my friend continues to cross-examine the witness. Yesterday Mr. Justice McLaurin asked about the flash point of gasoline. You recall that the evidence of Mr. Woodland was that the flash point of lubricating oil in a diesel was I think 450 degrees. The flash point of diesel fuel oil was 140 degrees. The flash point of motor gasoline is minus 70 degrees fahrenheit. That is under the Penzky-Martin test.

MR. LEWIS: Before proceeding with the cross-examination, you will recall that

Exhibit 45 was not filed because I had to send to Europe for copies. That is the statistical year book of the International Union of Railways. Copies have now arrived and I will file them. They have sent the English edition. We had the French edition here, but they have sent the English edition. The references in the evidence were to pages 136 and 137 of this Exhibit 45.

THE CHAIRMAN: And to page 20, column 1, for the definition.

MR. LEWIS: Yes, sir.

THE CHAIRMAN: What was the exhibit you were dealing with?

MR. LEWIS: Exhibit 128.

BY MR. LEWIS:

Q Mr. Youngs, at the adjournment yesterday we were dealing with page 16 of Exhibit 128 and with your estimate that the fireman was busy for 35 per cent of his time on Engine 5459. Page 16 deals with that, and you state that the fireman spent over 35 per cent of his time while running doing things in connection with the stoker. During your evidence, Mr. Youngs, you also informed the Commission that a pusher engine was coupled on; is that right?

A That is correct, it was put on at Sherbrooke.

Q It was put on at Sherbrooke and was on from Sherbrooke to Megantic; right?

A That is correct.

Q How far is that?

A Sixty-eight miles.

Q That would be a little more than half of the total mileage of the trip?

A Yes; it is 63.6 from Farnham to Sherbrooke.

Q I understood from your evidence, and from a reading of the transcript, that you changed from Engine 5459 to Engine 2604?

A That is correct.

Q At Sherbrooke?

A Yes, sir.

Q Because Engine 2604 was the lead engine; right?

A Yes, that is correct.

Q So you were not in Engine 5459 for more than half the trip?

A Just about half the trip.

Q How do you explain your estimate in that case?

A Well, from my experience with stoker-fired engines and the amount of time and trips I have had on stokers. There is a little more to it than just setting the stoker, setting the jet valves. The fireman is there to maintain steam when it is necessary. I know when the engineer is working the engine hard, and

on that portion of the territory it is hard going, with 1940 tons, which was the full tonnage for that locomotive; leaving Farnham it is up-grade. He was down on the deck breaking up his bank, adjusting his jets. Leaving Brookport you are up-grade.

It is not just a matter of adjusting the jets on the stokers and climbing on the seat. The stoker certainly does away with the hard laborious work of shovelling. It does certainly put the coal into the fire-box, but the fireman is there to adjust the fire and maintain steam and supply water when needed. When you are in rolling country such as this, where one portion of the road is up-grade and another portion is on the level or down-grade, therefore for one portion of the road you would be working the stoker fairly hard to maintain the steam pressure with the throttle wide open with that amount of tonnage he would be pulling and demanding steam and also demanding water. So therefore his attention would be drawn to the fact that he has to produce steam and keep the water level at a safe level.

What I meant to say is that his attention would be on the steam gauges

and on the water-glasses and on his stoker. Periodically he would have to adjust his fire and move the banks and make sure everything was O.K. If his steam pressure was down, he would have to bring it up again.

If the engineer was working on a hard grade, such as around Mount Orford, which is quite a heavy pull, the engineer might be drifting for a short while and then have to pull his throttle right up so that he can go right for ~~that~~^{the} hill.

Therefore during the time he is drifting along the fireman would have to adjust his stoker to keep the coal running steadily. He wouldn't have the engine popping. If he kept his stoker running continuously the same as it was previously on the other portions of the road where it was up-grade, it would be a waste of steam and water.

Q What you are saying is that the estimate on page 16 was not an estimate of what this fireman did, but an estimate of what your memory was?

A No, sir, what I saw him do.

Q Just a moment. You are saying that this estimate on page 16 is not what this particular fireman on this particular train did, but what your estimate

or your memory was of what a fireman would do in those circumstances?

A No, sir.

Q Is that right?

A No, sir. I was right there and watched him. I watched what he did. I watched his attention to the stoker. I watched his attention to the steam gauge and the water-glass.

Q For less than half of the trip?

A That is right.

Q You did not look at your watch?

A At that particular time, no.

Q And you did not count the number of times he turned his head and looked at things?

A No, I did not count the number of times he turned his head. It is not just a matter of looking at the gauge and looking out the window. His eyes would be on the steam gauge and on the fire-box.

Q You told the Commission yesterday in answer to a question by the Chairman and Mr. Justice Martineau that he would look at the steam gauge and then out the window?

A There would be times he would do that.

Q Just times, is it?

A Times he would do that.

Q And other times?

A Other times his attention would be right

on the performance of his stoker and the steam gauge and his water-glass, ~~putting~~ ^{blowing} down the water-glass ~~mountains~~ ^{mountings}.

Q His attention would be right on that for how long at a time?

A That would depend. I am not just prepared to make any estimate, but I did figure the over-all time was about 30 per cent or 35 per cent. That is, you want an estimate of the time? You want the times he turned his head?

Q You made a statement under oath on page 16 that it was over 35 per cent and I am trying to find out how you possibly could make that estimate?

A Just my experience. I have been myself running stoker engines and I noticed the amount of time he took to adjust his fire and have his attention on the stoker and his firing appliances.

Q That was for a little less than half the trip. You changed over to the engine that was coupled on at Sherbrooke?

A That is correct.

Q You were in that engine for 68 miles?

A That is correct.

Q That was a hand-fired engine?

A Yes.

Q I notice Engine 2604 --

A That is Engine 2604, that is correct.

Q Would that be the same type as 2609?

A The G-2.

Q Yes?

A Yes.

Q The same type?

A The same type of engine.

Q Both equally competent engines?

A Yes, they are both good engines.

Q Anything wrong with 2604?

A No, sir.

Q In comparison with 2609?

A The only thing is that 2604 was on a through freight train, a second-class train; 2609 was on a wayfreight, starting and stopping at different stations, picking up cars and switching.

--

--

--

- Q. Yes, but 2604 was the second engine on the train?
- A. 2604 was the lead engine.
- Q. Pardon?
- A. 2604 was the lead engine.
- Q. And there were two engines?
- A. That is correct.
- Q. That 2604 was on?
- A. Yes.
- Q. If you turn for a moment to page 18 under 2609, which was the engine, Mr. Youngs, your evidence at the bottom of that page is that the fireman took between 50 to 60 seconds for each fire. By the way, how many scoops would he put in for each fire?
- A. Well, on that particular trip that would be -- now, I didn't check his scoops on that trip.
- Q. You did check the scoops on some trip, though, I remember reading it -- remember which one?
- A. 2604.
- Q. You took the number of scoops over the range of 15 to 20?
- A. Yes.
- Q. 15 to 20 scoops of fire?
- A. Yes.
- Q. Would that be about the same on 2609?
- A. No sir, because the engine was not working so hard.

- Q. 2609 was not working so hard?
- A. No.
- Q. It was a wayfreight with 15 cars?
- A. That is correct.
- Q. Over 1,000 tons?
- A. Yes.
- Q. How many fire scoops -- could you make an estimate?
- A. Well, I didn't check them.
- Q. Well, at the bottom of 18 you say in your "additional comments" that he put in, as I add them -- and you can check my addition -- a total of 34 fires in 90 minutes -- nine and ten and fifteen fires total 34 and 19 and 24 and 47 minutes which, if my arithmetic is right, totals 90. That would be roughly about 30 minutes out of 90 minutes that he was putting in a fire, is that about right -- 34 fires 50 to 60 seconds each.
- A. That would be about it, roughly.
- Q. About one third of his time in your actual calculation at the bottom of page 16, is that right?
- A. That is right.
- Q. Now, in this note about engine 2604 you state that this man worked his fire and it worked out at 58 per cent?
- A. Yes sir, that is correct.
- Q. How did you come to the estimate of 58--

per cent?

A. Well, leaving Sherbrooke I had my stop-watch and I was interested in seeing -- we were on a second class train, a tonnage train for both engines -- I was interested to see approximately how many fires the man would put on between there and Megantic and between stations and I carry a small notebook and I marked down from Sherbrooke to Racey, Racey to Johnville, Johnville to Bulwer, Bulwer to Cookshire and so forth and I marked the time, that is, the minutes it took between stations, the amount of fires the man put on. In a couple of places I took the stop-watch and checked to see how long it was taking to put on a fire. His range was anywhere from 15 to 20, never more than 20.

Q. Scoops?

A. That is scoops, of course, yes, and I had that in my book.

Q. How long would it take to put in 15 to 20 scoops?

A. Between 55 and 60 seconds. That is what it took that man.

Q. Have you any idea how much there would be in a scoop, the weight of a scoop?

A. That would depend on the class of coal.

Q. How many scoops for this man you watched

so carefully?

A. We run about nine tons going down there, close to eight and nine tons particularly going on that trip, that is all uphill.

Q. You mean for the 68 miles you used from eight to nine tons of coal?

A. Yes.

Q. How did you make that estimate?

A. We made a rough estimate from looking at the top of the tender when we arrived at Megantic.

Q. Pardon?

A. We looked at the top of the tender when we arrived at Megantic.

Q. Who is "we"?

A. The engineer. The engineer has to book the amount of coal he burns on his trip ticket and he estimated between eight and nine tons.

Q. And that would show on his trip ticket, would it?

A. It should do. That is what they put on their trip ticket, the amount of coal they burn.

Q. Do you know how much he put on his trip ticket?

A. No, I did not stand and watch him make out his trip ticket.

Q. But you were with him when he made this estimate of coal?

A. Yes.

Q. And this trip ticket, he files it with the Company?

A. Yes.

Q. So that it is in the possession of the Company?

A. Yes, he is paid by that trip ticket.

Q. And the trip ticket would show the amount of coal used on that trip, is that right?

A. That he would estimate, yes.

Q. It would be the entire trip from Farnham to Megantic?

A. No, from Sherbrooke to Megantic. You were talking of the 2604; were you not?

Q. Mr. Youngs, this trip ticket he should make out to cover his entire trip, shouldn't he, from Farnham to Megantic?

A. **It** is going to have a different engineer on the 2604 than it did at Farnham.

THE CHAIRMAN: 2604 was put on at Sherbrooke.

BY MR. LEWIS:

Q. And it just stopped at Megantic?

A. Yes.

Q. So that his trip ticket would show how much coal he used?

A. That would show the approximate amount.

Q. His estimate?

A. Yes, his estimate.

Q. Can you guess how much a scoop weighs and

if you don't know just say so.

A. From what I have read and by correspondence approximately twelve pounds.

Q. That is what I have been instructed, Mr. Youngs, about twelve pounds and he would put in between 15 and 20 scoops in between 55 and 60 seconds?

A. Right.

Q. Well, go ahead. You were telling us how you made your estimate of 58 per cent.

A. Going up I marked the times in my notebook and when I got home I made a copy of it and I have it right here.

Q. When you got home you made a copy of it, of what?

A. Out of my small book, the miles between stations, the time between stations and the amount of fires the fireman put on.

MR. SINCLAIR: I have had this duplimatted and it is available if the Commission wishes to have it and if my friend wishes to file it. It is a lot of detail but there it is.

THE CHAIRMAN: That would be Exhibit 138.

MR. SINCLAIR: I think it should be numbered along with page 16 of Exhibit 128. We filed an addenda to that when Mr. Youngs was giving evidence in chief and so this would be the second addendaso it might be marked 128-

16-B.

HON. MR. MARTINEAU: And you filed that?

MR. SINCLAIR: Yes, it has been given to the secretary. I put the original in and then I had photostats made.

THE CHAIRMAN: Well, was it marked?

MR. SINCLAIR: Yes sir.

MR. LEWIS: It was not marked but it was supposed to come back with page 16.

MR. SINCLAIR: It is marked by the secretary "Appendix to Exhibit 128, page 16, Official Copy".

THE CHAIRMAN: Better make it Appendix A then and this will be Appendix B. Apparently Appendix A was already mentioned in evidence and handed to the secretary and he has marked it. We have not got copies.

MR. SINCLAIR: I had photostats made and returned the photostats to the secretary. I imagine you just have not got them in your books yet, sir. Here is one that I had.

HON. MR. McLAURIN: This is Exhibit 128-16-A?

THE CHAIRMAN: Yes, and 128-16-B

EXHIBIT NO. 128: --16--A
Photostated
Copy of page
from Witness'
Private Note-
book filed as
Appendix to
Exhibit 128.

EXHIBIT NO. 128:--16--B
Typewritten
and photo-
stated Copy
of Private
Notes of
Witness
filed as
Appendix to
Exhibit 128.

BY MR. LEWIS:

Q. When did you say you copied these notes
out of your little book?

A. When I got home.

Q. You mean after you finished the trip?

A. After I completed the trip, yes.

Q. And you wrote it out by hand or typed
it or what?

A. I typed a copy like this out of my
book.

Q. You typed a copy like that out of your
book?

A. Yes.

Q. In your office?

A. No, at home, when I got home.

Q. In your home?

A. Yes.

Q. And you have had that copy with you
all the time you were here, have you
Mr. Youngs?

A. This copy, yes.

Q. Where is the little black book you
wrote it out of?

A. It is another black book like this. I
left it at home.

Q. You carried it with you when you wrote down these notes?

A. Yes.

Q. And Mr. Carson was the engineer and Mr. Dillon the fireman?

A. Right.

Q. You have in this note which is now Appendix B, engineman Carson, fireman Dillon, engineman Pontom and fireman Roy on 5459?

A. That is correct.

Q. So you wrote down the number of fires he put in between each point that you have there?

A. Yes sir, between the different stations.

Q. And that is the way you arrived at your 58 per cent average which you show there?

A. That is correct.

Q. 82 minutes out of a total of 142 minutes?

A. That is correct.

Q. And he put in 15 to 20 scoops in each one of those fires that you marked?

A. Well, over a range of 15 to 20.

Q. Now, in this note, Appendix A you say you made that at the time?

A. I made that when we arrived at Megantic.

Q. Pardon?

A. I made that when we arrived at Megantic. I made a copy of that out of my book when we arrived at Megantic.

Q. You wrote that down out of your book?

A. Yes.

Q. Just made a note of what you had noticed had happened?

A. Yes.

Q. You say it was steaming well and it was good coal, the fireman was experienced and a good fireman. Now, you indicate that on this trip, page 16, you had a pretty heavy load and you were going uphill, were you, from Sherbrooke to Megantic?

A. Yes.

Q. It is an upgrade?

A. Yes.

Q. And the engine would be working pretty hard?

A. Yes, it was.

Q. In fact, you would say very hard?

A. Well, we were on a time card train and we made the scheduled running time.

Q. And your 58 per cent estimate is based on these notes you say you took at the time while watching the man fire?

A. Yes, that is correct.

Q. You say that the engineman also helped you time this?

A. Yes. When I was checking the amount of time it was taking to put in a fire I got Carson to watch out so that he would

check the time between station to station.

Q. And he was checking the time it took to go from one station to the other?

A. That is correct.

Q. From, say, Sherbrooke to Racey and from Racey to Johnville etc.?

A. Yes.

Q. Each one of those?

A. That is right.

Q. I don't suppose he checked each one?

A. No, not each one. I would have my stop-watch there and when I wanted to check the time it took the fireman to put in his fire I would say: "All right Kit, keep a check from this station on".

Q. Pardon?

A. I would ask him to keep the check from this station to the next one.

Q. And you spent all your time for the 68 miles in this engine 2604?

A. That is right.

Q. From Sherbrooke to Megantic?

A. Sherbrooke to Megantic, yes.

Q. No way at all in which you could see what was happening inside the cab of 5459 on this 68-mile trip?

A. No sir.

--

--

--



Q. Did you have any stop between Sherbrooke and Megantic?

A. No sir.

Q. And your remarks "Fireman not on seat" on Appendix B - what you are saying there is that he was on the deck all the time between Cookshire and Ross?

A. That is when he stayed on the deck; he did not stay on the seat.

Q. Was he shovelling all the time he was on the deck or looking out some of the time?

A. No, he was not shovelling all the time he was on the deck; he got himself a drink of water, rolled a cigarette, and lit a cigarette.

Q. And he could see out if he was standing on the deck?

A. The brakeman was up in front of him.

Q. He was standing; the brakeman was presumably seated?

A. Yes.

Q. He could therefore see ahead?

A. He could look through at the side of the brakeman's right shoulder, yes.

MR. LEWIS: Mr. Chairman, I don't want to be mean, but there is obviously a question of **credibility**, in some of this evidence; and with great respect I request you to instruct him to file the notebook from

which these notes are alleged to have been made.

MR. SINCLAIR: We will be glad to get it, sir.

THE CHAIRMAN: Very good.

MR. SINCLAIR: I may say, sir, that I told this witness that I did not want him to file this notebook because I thought there was too much detail in it. I take full responsibility for telling him not to do that; it was on my instructions that he did not do so.

BY MR. LEWIS:

Q. I would ask you to turn to page 2 of Exhibit 128. Was there not some alarm sounded in this consist, Mr. Youngs?

THE CHAIRMAN: What was your question again?

MR. LEWIS: Was there not some alarm or some light lit on this strip from Smiths Falls to Chalk River?

THE CHAIRMAN: What kind of engine was that?

MR. LEWIS: Two, car body type, an A and B.

THE CHAIRMAN: I understood you to say page 2?

MR. LEWIS: Yes sir, of Exhibit 128.

THE WITNESS: Not that I can recall, no.

BY MR. LEWIS:

Q. I am instructed, Mr. Youngs that the wheel

slip buzzer sounded at least four times during that trip?

A. The wheel slip buzzer?

Q. Yes. There is some kind of buzzer that sounds when a wheel slips, and it sounded at least four times on that trip?

A. Well, a man sitting where I was sitting on the wooden seat at the back of the brakeman has to have very sensitive ears and has to be very alert to catch that buzzer. He would definitely have a wheel slip light if his wheels were slipping.

Q. Perhaps he had the light as well. You don't remember anything like that?

A. I cannot recall hearing a buzzer, no.

Q. Can you recall anything about a wheel slip occurring on four occasions, and the fireman going back in connection with it?

A. He did not have to go back. The light would come on and the engineer would reduce his throttle.

Q. Can you remember anything about it?

A. No, I cannot.

Q. I am instructed also on one of the times when the fireman went back, you sent him; you suggested he had better go. Can you remember that?

- A. No, I don't remember sending the fireman back for any wheel slip.
- Q. To complete it, I am instructed he went back one time you sent him back, and he worked the sander manually by pushing up a switch, whereby the sanders can be worked manually, in connection with these wheel slip alarms. Can you remember that?
- A. I can remember going back on one trip, but I would not say it was this one. I can remember going back on one trip and working the magnet manually by pushing down on the valve to see that the sanders were working.
- Q. You went back?
- A. I went back, yes; but I would not stand here and say this was the trip.
- Q. What trip was it then?
- A. I have had so many trips...
- Q. Was it one of the trips which you report in Exhibit 128?
- A. No, I don't think it was.
- Q. You don't think it was any one of these?
- A. No, I don't think so.
- Q. The one which you remember, you went back yourself to work the thing?
- A. Yes.
- Q. You did not send the fireman back?
- A. No, I did not send the fireman back.

- Q. Why did you go back to check that on the trip you recall doing it, was it because of a wheel slip?
- A. A wheel slip light applying.
- Q. Now you are saying you are not sure whether it was this trip or not?
- A. No, I couldn't remember if it was this trip.
- Q. These notes that are in Exhibit 128, I suppose you made them as you went along?
- A. Yes, I made them as I went along, in my small notebook.
- Q. The same notebook?
- A. Could be - it possibly will be - February 2nd. This one starts March 6. Yes, it possibly will be in the notebook that the other one is in.
- Q. If you will turn to page 3 for a moment you will see at the bottom of that page that you instructed the fireman to give the brakeman the flagging kit?
- A. That is right.
- Q. Are you quite sure it was not the fireman who went out and flagged?
- A. The fireman did not go out and flag. He walked to the back of the rear unit, the B unit.
- Q. At that time, when the flagging was taking place?
- A. That is when he was standing there, when

I saw him after the other train was in the clear in the siding.

Q. You saw him at the B unit?

A. Standing on the ground at the back of the B unit.

Q. The fireman was standing on the ground?

A. Yes sir.

Q. Where was the brakeman when he was taking the flagging - when you told him to take the flagging kit to the brakeman?

A. The brakeman had got off the locomotive and was on the ground; just where I couldn't tell you.

Q. Was he not eight or ten cars back?

A. No, to my knowledge he was not eight or ten cars back, because I took a lamp off of a brakeman to signal the engineer ahead on 1261, and I thought at that time that was our brakeman.

Q. I am instructed, Mr. Youngs, that on this trip the fireman did the flagging?

A. There was no flagging done.

Q. You say there was no flagging done?

A. No.

Q. You simply sent him out to give the brakeman the flagging kit?

A. So that he could light a fuzee - with the amount of steam coming down, as a precautionary measure to bring No. 2 down; he would be prepared to come down

to his meet with 1257.

Q. That is your memory of what happened?

A. Yes.

Q. Will you turn for a moment to page 5, Mr. Youngs; there is something here that puzzles me with respect to your comment as to what should have been done. In the middle of that page you say:

"Fireman took signals from rear brakeman after pulling into siding at Yamachiche to cut crossing 65 cars from engine when clearing train 352. This not necessary as normal practice under such circumstances for westward train to stand back east of crossing, then pull through siding on arrival train 352."

I may not understand the picture, Mr. Youngs, but as I see it it means this: If he stood east of the crossing, 65 cars of his train would remain on the main track, is that right?

A. No. If he stood back east of the crossing his whole train, his 79 or 80 cars, would still be holding the main line.

Q. His entire train would still be holding the main line?

A. Yes.

- Q. Instead of going into the siding, is that right?
- A. That is if he had carried on and made the regular procedure, yes; but this particular trip he did not do that, he pulled in.
- Q. You say the other is the regular procedure?
- A. That is right.
- Q. Do you have a copy of the Uniform Code of Operating Rules?
- A. I certainly have.
- Q. Exhibit 27?
- A. Before we go any further may I add too that we were working, and we left Three Rivers with a Form U train order, a protection order, to give that train the right to sit on the main line until after 7 o'clock.
- Q. You had that form, did you?
- A. Yes sir. That gave us the right to hold the main line until 7.01 p.m. - operator hold all trains at Three Rivers until after 7 o'clock.
- Q. You were given this Form U, were you?
- A. Form U train order.
- Q. What does the "U" indicate?
- A. It is a protection order.
- Q. I suppose you know what I was going to draw your attention to, and your answer

is that Rule 89 at page 48, first paragraph, would not apply because you had a train protection order?

A. That is right.

MR. LEWIS: I was going to refer, Mr. Chairman, to that rule, and so that the transcript will read with some sense, I will read the first paragraph of Rule 89, which says:

"At meeting points the inferior train must take the siding and clear the time of the superior train not less than five minutes, except at schedule meeting points between trains of the same class where the inferior train must clear the main track before the leaving time of the superior train."

BY MR. LEWIS:

Q. I understand that 352: is a first-class train?

A. That is correct.

Q. So that it was superior to your train 91?

A. That is correct.

Q. And under this paragraph of Rule 89 which I read to you, you would have had to clear the main track?

A. Without that, yes.

- Q. You say that was superseded by the protection train order?
- A. It was not superseded. It just meant **that** we could hold the main line to get time to get the flagman out to flag 352, and comply with Rule 99.
- Q. But did you also comply with Rule 89 at the same time, about the five minutes?
- A. What we did there was send a flagman out - to save cutting the crossing we had put a flagman out to protect against 352. Then when we saw 352 coming we would pull the train through the siding. 352 would come to that block and stop, or wherever the flagman was stopping him, at sufficient distance. He would notify 352 that we had 79 cars, more than the siding would hold. Then 352 would proceed into ^{with caution} ~~a~~ portion, and as soon as he got by we would pull right through the siding.
- Q. You would not be able to comply with Rule 89, of clearing the main track in not less than five minutes, is that right?
- A. It would be a matter of pulling through at the time he was leaving the next station -- let me get this right -- it would mean when we saw him coming, to save cutting the crossing by this

time the rear end brakeman would be out, and he would throw the main line switch for the siding. As soon as we saw 352 coming we would pull our train through the siding. Our frontend brakeman would notify 352 engineer that we had too many cars for the siding to hold; then he would come up and be prepared to stop if we were not clear.

D
Follows

--

--

--

--

--

Q And you could do that. That is what I cannot understand. Your explanation is that you are permitted to do it that way because you have the protection given you by the train order form "U".

A That is right, and also our flagman out protecting us on 352.

Q You would do that as a consequence -- if you did not have your form "U" you would not be doing that.

A With that amount of cars we would still have to flag because we had too many cars for that siding.

Q Oh, I just understood you had to cut the train because of the crossing?

A No, the siding only holds 65 cars and at the end of the siding there is a road crossing.

Q I see. The crossing was at the end of the siding?

A That is correct.

Q On Page 8 of Exhibit 128, Mr. Youngs, you say there was a ground relay at mileage 85 and that you reset the switch points, and in your evidence you said you noticed by the amperage gauge -- what is that called? -- you noticed by some gauge that there was a loss of power. You said at Page 3118 of the transcript, Mr. Youngs, to save a little time, you said about

this ground relay on the second unit --

Mr. Sinclair asked you:

"By the way, why did you reset
it yourself, Mr. Youngs."

And you replied:

"I noticed the amperage dropping
off the forward unit."

You said a little later:

"We noticed the power drop off;
the lead unit was taking all the load.
We knew there was something wrong with the
trailing unit. I went back to see
what was wrong and that is when I
noticed that alarm bell on the rear
unit was ringing, and we had a ground
relay."

And then you informed us that the alarm
was ringing in the leading cab because,
you said, there was a defective wire
between the jumpers, between the two units?

A That is right.

Q I am instructed, Mr. Youngs -- this is
just a little correction -- I am in-
structed that the engineer asked the
fireman to go back and that the fireman
went back with you?

A I did not hear the engineer ask the fire-
man. We saw that the leading unit was
taking the load and the engineer said to
me: There is something wrong by the looks

of it.

Q The engineer said that to you?

A Yes.

Q When you say "we" noticed the power dropping off, you mean the engineer noticed it and you noticed it?

A Yes.

Q And the engineer said something to you, did he?

A He said: "There is something wrong" and I said "Yes, there definitely is" and I walked back. What he said to the fireman I don't know.

Q Did the fireman not go back with you?

A He followed me back, yes.

Q And you got there and reset this switch?

A Yes. I had it set by the time the fireman got to the rear unit.

Q I suppose that if you had not been there you would agree with me the engineer would have told the fireman to go back and do exactly what was done?

A I agree with that; he possibly would have.

Q About this opening of the door on G.M. road switchers. I am talking about the door of the engine, off the catwalk. You described to the Commission at Page 3151 of volume 24 how dangerous it would be, and you said you opened the door latch -

the top latch of the door -- and then bent down to open the bottom latch, and by the time you did that the top latch was closing.

A. Sometimes that happens.

Q Is that the way you open one of those doors, Mr. Youngs?

A Well, there is a latch at the top and one at the bottom.

Q Do you open the top latch with your hand and then bend down and open the bottom latch with your hand?

A I have done it that way, and I have seen firemen do it that way, too.

Q I am instructed that the usual way in which people do it is to open the bottom latch with the toe of their shoe and the top latch with their hand. They can do that can't they?

A They could do that.

Q And they do do it that way?

A I have not seen them doing it that way.

Q Surely, no one is going to go down to open it with his hand when he can put his foot out and push down the latch?

A That is not always possible.

Q Why not?

A B cause it is made to go back in a concave.

Q Someone described it to you as a converse stirrup -- something like that -- is that

right?

A As a stirrup?

Q Yes?

A No, it is just an ordinary handle.

Q It goes like that, and you say there are times when you cannot push it down with your foot?

A There will be.

Q Well then, if you cannot push it down ~~with~~ your toe, have you ever seen them bend down and move the latch back with their fingers and then put their toes on it, and then raise their hands and lift the top latch?

A I have never seen that. I have never seen it done like that.

Q In your experience people take the top latch off, and then leave it and bend right down to push the bottom latch off and then the top latch goes back into place?

A Sometimes it does. Not always.

Q The two ways I have described are ways in which it could be done?

MR. SINCLAIR: I hope my friend is going to prove something as the result of the instructions he has been getting. This has been going on for a good many days.

MR. LEWIS: I intend to.

BY MR. LEWIS:

Q Now, about a fireman noticing and acknowledging signals, Mr. Youngs, At pages 3148 and 3149 of volume 24 of the evidence, you informed the Commission in answer to questions by Mr. Sinclair that at the time of a junction signal, and I am reading your answer, you would try and regulate your firing so that you would be in a position to see the junction point or train order boards. Sometimes it was possible and sometimes it was not possible.

But with regard to block signals, Mr. Sinclair asked you, at the top of page 3148:

"When you were running as an engineer and when you were running as a fireman, was it or was it not the practice of the fireman to call block signals?" And you replied:

"Yes it was, when he was up on his seat and you could see them; of course, when you are down on the deck you couldn't see them, and it was up to the engineer and the brakeman."

Then you were asked:

"Would you say anything if they called a green board or a green block?"

And your answer was:

"I would repeat, yes."

And then you were asked:

"Before you repeated it, would you not look at the block signal?"

And your answer was:

Not always, no."

The point I would like to clear up for the Commission and for myself, is, what is the difference between -- what rule and practice or anything else makes the difference between a junction signal and a train order board on the one hand for which you would try to regulate your fire, and a block signal on the other hand for which, apparently, you would not bother to regulate your fire. What is the difference?

A An order board possibly could be, and is, sometimes, on the opposite side to the engineer and when a man is firing he does attempt to see that the order board is clear and there is every chance, and it could happen possibly, that when the engineer calls the order board clear it could be that the dispatcher wants that train and has dropped the order board. So therefore the fireman would try to be in a position to notice the order board as he passes and I tried to do that whenever it was possible when I was a fireman.

Q I appreciate that, but why is that not necessary also with regard to a block

signal. That is what I am trying to understand.

A When a man is firing he certainly will acknowledge and try to see as many block signals as he can, but when he is down putting in a fire and firing, especially on a heavy grade with a heavy train, then he would rely on the engineer and the brakeman, and when they would call a clear block, he would answer them.

Q Without looking to see?

A Yes.

Q Wouldn't you also try to regulate your firing so that you would be in a position to see a block signal in the same way as you would try to regulate it so that you would be in a position to see a junction point or a train order board?

A That was not always possible on heavy trains.

Q But would you try?

A Yes, but it was not always possible.

Q Would you try in the same way for a block signal as for the other?

A Yes, you would.

Q Sometimes it would not be possible in the case of a junction or a train order signal in the same way as for a block signal?

A When you are coming to a junction point

you would be slowing down to register and pick up orders. Invariably that happens, and at the time you would not be down on the deck putting in coal.

Q You would be slowing down and you would not have to fire?

A You would not be putting in a heavy load of coal because you would be slowing down.

Q And in the case of a block signal you would have to keep on?

A The engineer would call it. You would be down on the deck making up your fire and building your fire.

Q To take another moment to understand this, the fireman and the engineer, if they knew the road, would know where these block signals were just as they would know where these junction points and train order boards were?

A When you are running along your block signal is spaced and it is not always possible to have a fire and to have your engine steaming to the extent that you have the capacity of steam to meet the demand that the engineer is needing to be used on a heavy train, therefore you would be supplementing and building that fire and making steam for him to keep going.

- Q •You have not answered my question. I asked you whether an engineer and fireman would not know where the block signals were. They would, would they not, if they knew the road?
- A They can see them when they get to them.
- Q Before they get to them they would know when they were approaching?
- A When they are coming around a curve they would know they were approaching a block on the next curve, yes.
- Q In the same way they would know, if they knew the road, when they were approaching a junction point or a train order board; is not that right?
- A Yes, if they knew the road thoroughly the engineer would.
- Q And so would the fireman if he knew the road thoroughly; is not that right?
- A Yes, he would. As I said, it would not always be possible for him to be on his seat to see that block signal.
- Q I appreciate that, but I am asking you whether, knowing when a block signal was approaching, would he not try to place his firing in the same way?
- A Yes, if possible.
- Q And in that respect there would not be any difference between a block signal and other signals; is not that right,

as to the actions of the fireman?

A Well, the actions of a fireman coming to a junction point, he would stop firing coming down to that point to pick up his orders, to stop and register and possibly take water.

Q Could he not do exactly the same thing in the case of a block signal?

A Yes, I suppose he could.

Q As a matter of fact, he would not even have to get off the deck to do that, would he?

A No, he could look out the doorway.

Q Just stand when he was approaching a block signal; stop shovelling coal and watch for it, is not that right?

A Yes, he could do that if he knew exactly where he was, but when you are there with your head down and your back up and with a shovel of coal in your hand, you are not thinking about block signals. You are thinking about producing the steam the engineer is demanding, the power to pull the train.

Q And he could not stop for a minute or whatever it might be to look out?

A It would be a hundred per cent man who would stop half-way through putting in a fire to look to see if the block was green, yellow or red. He would take

the engineer's word for it.

Q On an occasion when he was down on the deck?

A That is right.

Q He would rely on what the engineer said without checking what the signal was?

A Yes. If the engineer called yellow, he would stop shovelling because he would know he was coming on to a red block and a red aspect. He would stop shovelling because he would not want his engine blowing off and wasting coal and water.

Q Then he would look up?

A Then he would get on his seat and look out.

Q Have you had any experience in connection with the disciplining of firemen who did not keep a lookout?

A No, sir, that is not part of my job.

MR. LEWIS: Mr. Chairman, I have asked for more details of something that was put in my hands which does not contain enough for Mr. Sinclair to be able to trace it without more trouble than I thought I should ask him to take. I just wanted to see the details of a discipline case referring to this matter of lookout by a fireman and shovelling which I shall ask the Commission's indulgence to refer to and file when I have obtained the added details which I do not now have.

THE CHAIRMAN: Very good.

MR. LEWIS: So that my friend will be able to check it in his files.

BY MR. LEWIS:

Q You informed the Commission in reply to a question by Mr. Sinclair as to your training of steam engineers to run diesels, and I would like to go over that for a very short moment with your assistance. You said that you went out to train engineers and you gave the details of that training, and then Mr. Sinclair asked you at the bottom of page 3098, Volume 24:

"Q. Do you instruct firemen on diesels?

A. When they ask me any questions I give them all the information I can, when they ask me for it. As far as giving instructions, I instruct them on the steam generator."

A I do instruct them on the steam generator, yes.

Q I gather from that that you took no initiative in giving a fireman any other information about the engine?

A Well, I would not say that.

Q You would not say that?

A I would not say I did not take any

initiative. I am that type of fellow when I ~~start~~^{started} on this job -- when I started my instructions were to train engineers, and when the engineer came around the fireman would be with him so naturally the fireman would get some instructions, the same as the engineer. Any fireman that was interested, and to me every fireman is a potential engineer; that means that every man that is a class man, that is a classed engineer that has passed his mechanical examination; he is an engineer to me because that man is subject to call to run a train at any time when they are short of men.

Therefore it is my duty to teach these fellows to know as much about the power they are handling as possible. I have made it a practice that when a fireman shows an interest and asks questions I would go over the locomotive with him and show him the protective devices, so that if he is not a ~~class~~^{classed} man, when he comes up to be examined he would know the answers. If he is a ~~class~~^{classed} man, when he comes up to be examined he would know the answers. If he is a ~~class~~^{classed} man and if he gets called out on the road to handle a locomotive, then he can handle it with the minimum of instructions from

the road foreman, whichever road foreman it may be. It might be myself, it might be another chap that is on this territory or any place else.

I have always made a practice of doing that. I have never refused yet to instruct or impart any information about a diesel engine to any fireman or engineer. I must admit that. During the period of time when we had Form 604 in operation I would go back with the fireman and show him what he had to put on the form and at the same time I would show him the protective devices because if he was not a class man I knew that some period of time he would have to come up for examination and know these answers.

I have helped, I can say right here, hundreds of young fellows to prepare themselves to become engineers.

Q Therefore your statement in answer to Mr. Sinclair, "When they ask me any questions I give them all the information I can, when they ask for it" was not exactly what you have done, if I understand your answer now. You did not merely wait for them to ask questions if you thought they were potential engineers?

A If they showed any interest, but I am going to tell you that there are young

fellows who do not show any interest and who do not ask any questions. They just don't give a hoot what happens. Well then, I don't bother about them because I know that is the type of young fellow who probably will not be staying with us.

Q And would not make a good engineer?

A That is right.

Q You would consider a fireman was a potential engineer if he showed any interest, and if he showed any interest then, if I understand your answer correctly, you would go out of your way --

A To show him.

Q -- to show him?

A Yes.

Q And to instruct him?

A That is right.

Q And you did not wait for him to ask every question; you took him around and showed him all about the diesel?

A Once he showed interest in the diesel locomotive and asked me questions I would take him right around and show him every portion of it and what it meant. Right from the time when we first got these engines we were imparting this information to anybody that asked for it.

Q You did that because you considered --

you did that in the case of the firemen because you considered that every one was a potential engineer?

A That is right. That was not my assignment; my assignment was and still is to train engineers.

Q Would I be right in suggesting that the majority of the firemen did show interest?

A The majority did, yes. We have some good men as firemen on this road.

Q I suppose I would be right in surmising that a very small minority of them in fact did not show interest?

A I will agree when you say it was a minority.

Q That minority would be the same sort of disinterested minority you find in almost every occupation where human beings are involved; is that not right?

A Possibly yes.

Q Even I suppose among road foremen?

A That may be; I don't know; I couldn't tell you. I know what I do myself.

---Recess.

--

--

THE CHAIRMAN: Have you another witness, Mr. Sinclair?

MR. SINCLAIR: Yes, my next witness, Mr. Chairman, is Mr. Leo L. O'Brien.

LEO LEONARD O'BRIEN, sworn.

BY MR. SINCLAIR:

Q Mr. O'Brien, you joined the Canadian Pacific service in March, 1925, as a carman's apprentice at Toronto. In 1926, a year later, you transferred as a machinist's apprentice at Lambton and served your time as a machinist completing your time in April, 1931.

Then, between that period, April, 1931 and February, 1932, you worked as a machinist and machinist's helper at Toronto and Lambton and from March, 1932, to April, 1934, you were laid off due to lack of work.

In April, 1934, you returned to the service and for a number of months worked as a machinist and machinist's helper and a boilermaker's helper at Lambton, taking whatever work was available.

In July of 1934 to January of 1940 you worked as a machinist at Lambton. In 1940 in February and following through that year you worked as a relief night foreman, relief assistant foreman and

• chargeman at Lambton and Trenton, Ontario.

In 1941 you worked as a locomotive foreman for part of the year and for part of the year as a chargeman at Trenton, Kingston and Havelock.

Between 1941, the end of 1941, until 1947 you worked at Chapleau as night foreman, as assistant foreman and finally as locomotive foreman at that point.

In September of 1947 you were transferred to Outremont as a locomotive foreman at that point and you held that position until June of 1950 on the opening of the St. Luc yard where you were transferred to be first locomotive foreman and then in 1951 you became the general locomotive foreman at St. Luc.

In 1952, March, you became the Division Master Mechanic at Farnham, Quebec, and a year later, on April 1, 1953 you became the Division Master Mechanic of the Smiths Falls division with headquarters at Smiths Falls, Ontario and is that the position you now hold?

A Yes, that is correct.

Q Is the information outlined there accurate?

A That is correct, yes.

Q Now, as Master Mechanic of the Smiths Falls division just what is your jurisdiction, Mr. O'Brien?

A Well, I have over-all supervision over the engine crews, also over the car shops and the locomotive shops and I am responsible for the rolling stock and locomotives while on the division and we have a certain number of locomotives we maintain on the division.

Q In carrying out your duties do you or do you not ride engines?

A Yes, very frequently I ~~read~~^{ride} both steam and diesel engines.

Q Now, the Smiths Falls division runs from Montreal to Chalk River by way of Smiths Falls and Ottawa, two lines, and you have branches to Cornwall, Prescott, Brockville in Ontario and Maniwaki and Waltham in Quebec?

A That is right.

Q And its mileage, as I have it noted here, is 646 miles?

A Yes.

Q You said it was part of your duties that you rode locomotives. Do you keep a record of what occurs when you ride these locomotives?

A Yes, I keep a record of each engine or each train I ride and also make a note of the engineer that is on that train.



Q. Do you note any irregularities or instances?

A. Yes.

Q. In relation to motive power?

A. If there is any defect I jot it down and take the necessary steps to have it corrected.

MR. SINCLAIR: Mr. Chairman, I would like to file as Exhibit 138 "Statement of miles travelled on diesel units and alarms recorded by L.L. O'Brien, Division Master Mechanic, year 1956".

HON. MR. MARTINEAU: This is over the Smiths Falls Division?

MR. SINCLAIR: Yes sir.

EXHIBIT NO. 138: Statement of miles travelled on diesel units and alarms recorded by L.L. O'Brien, 1956.

BY MR. SINCLAIR:

Q. You have that statement before you, Mr. O'Brien?

A. Yes I have a copy of it.

Q. Were all these trips on the Smiths Falls Division?

A. Oh yes, they were all on the Smiths Falls Division.

Q. I note the total mileage for the year 1956 on diesels was 15,091, and in that period you had three alarms?

A. That is correct.

- Q. You had one in May, which was an engine overspeed trip. Was that on a freight or passenger train, do you recall?
- A. That was on a freight train at Shawville, a road switcher type of locomotive with manual transition.
- Q. What caused the engine overspeed?
- A. The engineer's failure to reduce the throttle from No. 8 to No. 6 position while making transition.
- Q. You said this engine had a manual transition?
- A. That is correct.
- Q. How many manual transition engines has the Canadian Pacific?
- A. Five - 8400 to 8404.
- Q. On all the later power the transition is automatic?
- A. The transition is automatic on all later power.
- Q. In August you had two alarms, two ground relays on the same trip, on the same unit. Was that a freight trip or a passenger trip?
- A. This one was a passenger train, train No. 1, and I believe it was due to high speed. When we got up to around 88 or 89 miles an hour, trying to make some time around Bourget on the division between here and Montreal, they had been

laying some new rails, and I put it down to the new rails causing vibration of the engine which caused the overspeed to trip. We were aware of that condition before we left Montreal; the diesel inspector, Mr. McClean had told us that that might possibly happen, and the fireman was right on the alert; he went back and set the ground relay at once. That was at Bourget. The other one was at the diamond out here at Hurdman's, as we were crossing there; the vibration on the diamond caused the same thing.

Q. This was on train No. 1, that is the Canadian?

A. The Canadian, that is correct.

Q. Before I come to your recorded observations, Mr. O'Brien, a thought just occurs to me about these alarms that I might clear up. Is a wheel slip an alarm?

A. I never considered it an alarm. It is what we refer to as a warning; it lets the engineer know this condition is starting. It always happens, or practically always, when we are making transition - it practically has to happen.

Q. What are you saying, that it always takes place when you are making transition?

A. That is correct, yes. I hear it, and when I realize the speed of the train and he is making transition, it does not concern me at all; I don't give it a second thought.

Q. If you had on your trip wheel slips, would you have recorded them?

A. No, I would not, because I think it is a result of the operation of the locomotive. There is nothing that I know of that anybody can do about it; that is, when they are making transition. Of course when they are on a heavy grade and start to slip, the engineer can use the manual sanding, if necessary.

MR. SINCLAIR: Mr. Chairman, I would like to file Mr. O'Brien's observations as Exhibit 139; there are 20 of them.

EXHIBIT NO. 139: Trip record by
L.L. O'Brien.

BY MR. SINCLAIR:

Q. Mr. O'Brien, in making these observations, some of which are diesel and some of which are steam, where did you ride when you were making these observations on diesel?

A. I rode in the cab of the leading unit.

Q. Over the entire trip?

A. Over the entire trip, that is correct.

Q. When you made your observations on

steam engines, where did you ride?

A. Well, there wasn't much room there; I was standing in the gangway behind the engineer, just hanging on to the hand rail.

Q. Were you in the cab?

A. I was in the cab; I could observe everything that was going on in the cab.

Q. Mr. O'Brien, in making your observations that are recorded in Exhibit 139, and based on your general observations in the carrying out of your work, where on a road switcher on the left-hand side does the fireman sit and where does the head trainman sit, in freight service?

A. I noticed the head trainman seated in the lead seat a great deal of the time. It seems to be a matter of choice; I can't see that they were very fussy where they sat.

Q. Who?

A. The fireman or the trainman.

Q. That is on the Smiths Falls Division?

A. That is correct, yes.

Q. Let us take page 1 of Exhibit 139.

Under "Details of duties performed by fireman en route" you say:

"Out of cab twice en route,
once five minutes, once three
minutes. No report to engineman,

"and trainman did not perform any extra duties. Accepted signal --"

That is the fireman accepted --

"-- to back up in St. Luc departure yard. Looked back twice en route to examine train about 20 seconds each time. Signal could have been given by train or yard man placing himself in proper position."

THE CHAIRMAN: What kind of units were these?

MR. SINCLAIR: These are two A's, back to back, car body type.

BY MR. SINCLAIR:

Q. Then under "Additional comments" you say:

"Units left shop track at St. Luc at 6.20 p.m., lifted one car in departure yard, and were put in leg of wye for trains departing east and south. After arrival of draft from Hochelaga, signal to back up was given from the fireman's side. All other signals given from engineman's side. Seven cars lifted at Soulange. This was train 905 running extra for operating convenience."

These signals that were given to the fireman, based on your experience was that necessary or was it not?

A. I did not consider it necessary. It was a matter of convenience; if they walked across a couple of tracks they could have got the engineer and given him the signal.

Q. Sheet No. 2: This is steam operated, G-2, hand-fired. Under "Preparatory duties performed by fireman" you say:

"On duty 2 p.m., checked fuel, water, prepared fire, examined flagging kit, checked water glass mountings and tri cocks."

Under "Details of duties performed by fireman en route:

"Left Smiths Falls 2.41 p.m., arrived Almonte 3.28 p.m. Put in 33 fires. Left Almonte 3.50 p.m., arrived Renfrew 4.55 p.m. Put in 31 fires. Took four tons of coal. Left Renfrew 5.10 p.m., arrived Palmer 5.19 p.m. Put in five fires. Left Palmer 6.08 p.m., arrived Pembroke 7.27 p.m. Put in 27 fires. Left Pembroke 8.19 p.m., arrived Chalk River 9.05 p.m. Put in 18 fires. Each fire averaged 35 seconds.

"Additional comments:

Elapsed running time 246 minutes, 114 fires at average of 35 seconds - 67 minutes putting in fires or 27 per cent of time. There is a coal ~~shute~~ ^{chute} at Renfrew at which four tons of coal was taken, making it unnecessary for the fireman to go back in tender to shovel coal. Eight tons of coal used in entire trip. Heaviest grade Palmer to Haley's 20 minutes, and 15 fires put in."

No. 3 sheet: road switcher, running singly. Under "Details of duties performed by fireman en route" you say:

"Road switcher, did not leave cab en route, called all details re routes lined and distances from cars while proceeding to train at Chalk River and while switching at that point also in yard at Smiths Falls. All signals were given on engineman's side. It is doubtful if he heard the fireman."

What does that mean?

A. He had his head and shoulders right out the window.

Q. Who did?

A. The engineer, watching the signals of the ground crew, and I was doubtful

whether he heard anything that was said by the fireman at all.

Q. No. 4: Duties performed by fireman en route --

THE CHAIRMAN: What are these?

MR. SINCLAIR: Both road switchers, sir.

BY MR. SINCLAIR:

Q. "Blew out air reservoirs at Monklands during train inspection. Took signals on left side when cars set off at North Junction in the 'the branch' road switcher class, and did not leave cab en route. Set off could be arranged at another location to save rear crew from walking long train to assist in giving signals on engine-man's side."

What do you mean by that? When they made this set off did the rear crew not come up?

A. No, it was a train with 82 loads, and we did not wait. We had cars at the headend to set off and did not wait for the tail end to come up. They gave signals on the fireman's side and made the set off accordingly.

Q. You said the set off could be arranged at another location. Do you mean there was another track there?

- A. Within about a mile of that there is an independent lead at Ballantyne; a set off is made there every morning, train 910. My thought when I wrote that up was that the same thing could be arranged for this train.
- Q. What would that mean?
- A. It would mean the transfer would go to Ballantyne and pick up cars, rather than at North Junction.
- Q. If the set-up was at the independent lead, at Ballantyne, what effect would that have?
- A. In so far as signals were concerned, all signals at Ballantyne could be given at the engineer's side.
- Q. Is that a right-hand curve?
- A. It is a straight track.
- Q. It is a straight track at Ballantyne, and at the branch is it a left-hand curve?
- A. Yes sir.
- Q. Under "Additional comments" you say:
- "Fireman handled two switches
when engine was being placed on
the shop track at St. Luc."
- Where was the head trainman?
- A. He left us at what is known as the hump. In order to get down into track No. 3 it was necessary for two switches to

be thrown.

Q. Why did he get off at the hump?

A. I think it was a matter of his own convenience. There was a bus service that would take him back down to his van. That is the only reason I can think of.

Q. Sheet No. 5: Here we have two road switchers, 8641 and 8642, a two-unit consist. This is a pick-up train, 17 loads and 39 empties. Under "Details of duties performed by fireman en route" you say:

"Cars lifted at Chesterville and Winchester and set off at Bedell. When cars switched at loading platform Nestle's at Chesterville, signals must be given on the fireman's side. Fireman repeated all signals. He made visual inspection of units at Monklands."

The Commission will recall that Mr. Crate also dealt with this plant at Chesterville, Nestle's Milk Company. What do you mean by that, Mr. O'Brien? Will you tell the Commission about it?

A. I was looking at it strictly from an operating point of view, and I thought the better way to do that job would be

to have an eastward train do the lift there. In giving the matter further thought, if we had waited until the rest of the crew came up the signals could have been given by the trainmen, properly placing themselves either on top of the cars or in the unit; that is, the signals could have been given to the engineman by them properly placing themselves.

H
Follows

--

--

--

--

--

--

Q What do you mean? You say the ground crew could get on the top of the cars or in the unit. What do you mean?

A The head-end trainman remaining in the cab.

Q What you are saying is that if the crew came up and got on top and relayed it on the right-hand side on a westbound drag, if they wanted to do it from the ground on the left-hand side they could put one of their number in the cab to relay it across to the engine. Is that correct?

A That is correct.

Q Would you need three men on the ground or not?

A Oh no, you are only handling, I would say, ten cars at any one time.

Q No. 6 -- oh, before I go on to that, I only read part of this; I don't mean to leave anything out. On page 5 you went on to say that the fireman's claim that No. 8641, the leading unit, was using cooling water was not confirmed by your observations. What did you mean by that?

A I had ridden those two engines to Montreal, and they used nothing and I contacted the shop and asked them to give it a quick turnout. They gave it



the usual trip inspection, and then I observed the water half-way through the division at Monklands, and again at Smiths Falls, and it was using no water.

Q Are you saying that the fireman was wrong?

A Definitely, he was wrong.

Q No. 6 of Exhibit 139. Alarms. You say both units had low booster air pressure booked on arrival at Smiths Falls -- this is an engine going from Smiths Falls to St. Luc -- and as a result the engineer sent fireman back at Merricks-ville to examine engine room. No improvement.

What could he have done? What do you mean by that?

A He couldn't have done anything, and I guess the engineer was just curious to see how things were going there, so he sent the fireman back. He was in my opinion worrying unnecessarily about the booster air pressure. The booster air pressure is merely an indication of the fact that the engine is not delivering sufficient horsepower, and we had sufficient power to keep our train going at scheduled speed.

Q Could the engineman have done anything if he had gone back himself?

A No. It is purely a shop matter.

Usually we find the trouble is in the ~~turbine~~^{turbine} charger which means changing it-- pretty near a day's work.

THE CHAIRMAN: What type is this?

MR. SINCLAIR: These are A and B car body types, sir.

BY MR. SINCLAIR:

Q Now I notice that this is 3,753 tons. Would one unit pull that across the division?

A That is an eastward train. The A rating for one unit is 4,400 tons. The reduction in the tonnage is to get speed.

Q So this is less than the A rating for even one unit.

A That is correct.

Q Additional comments:

"One car set off at old St. Luc branch, some signals were given on the fireman's side. Fireman lined two switches on shop track at St. Luc. Set-off at St. Luc could be arranged at another location to save rear crew from walking length of train to assist in giving signals on engineman's side." Is that the same as the comment you had on No. 4?

A That is correct. It is the same set-up.

Q And the same reason with respect to the firemen throwing switches that you

explained earlier?

A That is correct.

BY THE CHAIRMAN:

Q You say the fireman lined two switches on the shop track. Does that mean he got out of the cab to do so?

A Yes.

Q At the end of the run?

A That is correct. At the end of the run.

Q He was finished?

A He had lined those two switches and we would proceed into the route he had lined up.

Q How far?

A Probably about three or four hundred feet.

MR. SINCLAIR: The head trainman had got off -- he had "taken the bus"?

THE WITNESS: That is correct. He had left us at the hump.

MR. SINCLAIR: No. 7.

THE CHAIRMAN: Road switchers?

MR. SINCLAIR: Road switchers, yes sir, two of them. The only point I have marked here is this additional comment:

Fireman called all distances and switches while moving about the yard at Smiths Falls and Chalk River.

BY MR. SINCLAIR:

Q Where were the ground crew working when

that was done?

A They were on the engineman's side. The usual procedure there, as I saw it, the fireman would make the remark "He is at the switch" or "He has got the switch" -- "He has gone to your side" and after he had gone to the other side, the engineer would get the signal to go ahead.

Q And was there need for the fireman to call these?

A There is no particular value to it that I can see. No, there is no need for it.

Q No. 8 is 2609. This is a G2 steamer.

THE CHAIRMAN: D2 or G2?

MR. SINCLAIR: A G2 steamer, hand fired. Twenty-one loads, one empty. Details of duties performed by fireman enroute:

"Took signal left side in Ottawa yard once. Took signals at Smiths Falls yard office while four cars set off for 905. Cars set off and lifted at Carleton Place. All signals on engineer's side. Signals in Ottawa yard unnecessary. Yard crew receiving cars Smiths Falls should have assisted in signals."

BY MR. SINCLAIR:

Q Where would the tail-end crew be at Smiths Falls?

A They would be back in the van. The

set-up at Smiths Falls is such that there is a close connection with our time freight going to Toronto and they have a yard engine waiting there to pick up these cars and the obvious thing for them to do would be to assist in this move. The tail-end crew would have about twenty cars to walk up.

Q Now, you say in your additional comments:

"From Ottawa to mileage ten Nepean, distance ten miles, running time twenty-five ^{minutes} ~~seconds~~, twenty-one fires average fifty seconds per fire. Nepean to Carleton Place, running time thirty-three minutes, fourteen fires average fifty seconds per fire. Carleton Place to Smiths Falls, twenty-six minutes, eight fires thirty seconds each. This is 39 per cent of time on deck shovelling coal. Three and a half tons used."

Q Now, No. 9. In your additional comments --

THE CHAIRMAN: What are the units?

MR. SINCLAIR: These are road switchers, sir, and a B unit.

"Brakes in emergency at mileage 69.5, all flagging done correctly and promptly. On arrival at St. Luc receiving yard took eleven cars to flat switching yard, trainman dropped back

"to make cut on account of curvature, fireman called all switches and obstructions. Arrival at Ballantyne at 2:50 p.m. Engine not on shop tracks until 3:43 p.m."

(2)

BY MR. SINCLAIR:

Q Where were the tail-end crew all that time?

A They were away back at the tail end, at the end of these 54 loads -- 54 cars, I should say.

Q Did they come up at all?

A No, they did not.

Q If they had come up would it have been necessary to use the fireman as a signal passer?

A If they came up it would not be necessary to use the fireman, and I believe it has now been arranged that a yard engine should make that move, anyway. That is why I marked that time there. Normally, that move should be done by a yard engine.

Q And as a result of those observations of yours are you saying the company has corrected the position?

A By making the yard assignment pick up the cars.

Q Is that your information?

A That is my information. That is correct.

Q All right. On No. 9 of Exhibit 139, I

note, in your additional comments:

"Brakes in emergency at mileage 89.5. All flagging done correctly and promptly."

"Brakes in emergency" -- who put them in emergency?

A The brake hanger broke, and the brake beam dropped and a piece of the metal flew up and hit the train-line and broke the train-line which caused a loss of air.

MR. LEWIS: Could you speak a little more slowly? I did not follow you.

THE WITNESS: The brake hanger broke and that caused the brake beam to drop down and a piece of metal flew up and struck the nipple of the train-line, which caused the brake to go into emergency.

BY MR. SINCLAIR:

Q No. 10. Preparatory duties performed by the fireman --

THE CHAIRMAN: This would be two units?

MR. SINCLAIR: I am sorry, sir, these are two A units, back to back. Car body type.

BY MR. SINCLAIR:

Q You say the fireman performed as his preparatory duties a visual inspection of the engine rooms, checked the flagging kit, put EC switch -- is that the engine

control switch?

A That is right.

Q Put the EC switch at "run", and alarm bell rang. At my instructions he re-set ground relay and corrected trouble.

When engines are standing like that is the engine control switch put to the idle position?

A It is put in the idle position when the engine is standing.

Q And he re-set the relay?

A When he heard the bell ring he did not seem to realize what was wrong, so I told him to re-set the relay. It is not unusual in starting an engine for a ground relay to ^{trip} ~~break~~.

--

--

--

--

Q I notice under "Additional comments" you say:

"This was train 905 being run as extra for operating convenience. Left shop track at St. Luc at 6.25 p.m. Fireman turned one switch on shop track and another leaving shop track."

This was at St. Luc. Where was the switch tender? Was he not on duty?

A There is a switch tender on duty 200 or 300 yards away from there and I believe the reason for this was that they had just started taking engines ~~over~~^{off} the shop track at the new diesel shop and they had not been fully organized.

Q No. 11, the units here are an A unit in the lead; followed by a B unit; followed by a road switcher; followed by an A unit, which would be running, I suppose, cab in the rear?

A The 4007 cab was in the rear of the trailing unit.

Q The control cab would be in the front of the first unit; then would follow the B unit and then the road switcher.

MR. SINCLAIR: I may say the reason for that is that when they set up these consists and have two A units on them they put them back to back so that you do not have to

turn them at the end. They can go either way.

BY THE CHAIRMAN:

Q Why would there be a four-unit consist on that trip?

A That was to expedite the dispatch of power to Toronto. We had an accumulation of power in Montreal and it was just to get it up there.

BY MR. SINCLAIR:

Q Under "Details of duties performed by fireman en route" you say:

"Four times out of cab, four minutes each time, accepted signal given on left side in St. Luc yard to back up on ^{train} ~~track~~, this account engine put in south leg of wye to wait for train. Through two switches leaving shop track at diesel shop. Blew out air reservoirs at Chesterville when train was stopped for inspection."

Then under "Additional comments" you say:

"This was No. ~~45~~ train running extra for operating convenience. Necessary for crew to stay on duty on arrival at Smiths Falls until relieved account engine on main line. This was a four-diesel unit operation. Engineman at St. Luc tested brakes and sand without assistance from the fireman."

In the outline of duties where you mention signals was that required there? What was the situation?

A Is that under preparatory duties of the fireman?

Q No, when they were backing up the train he accepted a signal.

A No. That is the same situation as is given on sheet No. 1, I believe it was.

Q It is the same one?

A If the trainman had walked a sufficient distance he could have caught the eye of the engineer.

Q No. 12, under "Preparatory duties performed by fireman" you say:

"Changed crews with engine on train in yard. Made usual inspection of engine. Wanted to tighten up amphenol plug to fuel pump with a wrench. He thought it was an oil pipe and he was advised it was an electric cable connection. Checked flagging kit. Blew out air reservoirs."

If he had put a wrench on an electrical matter of that kind what would have happened?

A He would have twisted all the points off that were making connection in the fuel pump and that would have killed the engine.

Q Under "Additional comments" you say:

"Fireman turned one switch on
St. Luc shop track."

You have explained that.

"The entire trip was made in heavy
dense fog. It is doubtful if run-
ning inspections made by the train-
man were of any value as at times
it was not possible to see by the
second diesel unit. Fireman blew
out air reservoirs at Monklands
during train inspection."

Did you make your time on that trip?

A Yes, we did. We were of course relying
entirely upon the signals. We would get
a green signal and we would know we were
safe to the next green signal. Then if
we saw one, we knew we were safe to the
next.

Q Did that give you a right to the track?

A That gave us a right to the track. That
is what we were depending on. We were
not depending on vision ahead at all.

Q Then No. 13. Here it was an A unit and
a road switcher.

MR. SINCLAIR: If the Commission
would allow it for the next group, and I would
have this from one other witness, I would like
to write in on the three copies for the Com-
mission just what these units were. If that

is acceptable I would do it.

THE CHAIRMAN: You just tell us.

BY MR. SINCLAIR:

Q This was an A unit and road switcher.

MR. SINCLAIR: I might say that the 4000 class is the A unit. The 4400 class is the B unit. The 8400 class is the road switcher. The 8500 class is a road switcher. The 8900 is the Trainmaster. The 7000 class is the 1,000 h.p. yard switcher. The 6500 class is the 650 h.p. yard switcher. The 8600 class is also a road switcher. I am making up a list of these, as was suggested, along with the same for steam power.

THE CHAIRMAN: There is no harm in mentioning it every time because then it is on the exhibit and we would not have to look in two or three places to get that information.

MR. SINCLAIR: I will write them in on the next.

BY MR. SINCLAIR:

Q Then page 13 of Exhibit 139. Under "Alarms and defects en route" you say:

"No alarms. Fireman on making engineroom inspection 4004 reported exhaust leak from manifold, also fuel oil leak at secondary filter. Exhaust leak stopped en route when manifold expanded account heat. He wanted to tighten fuel oil filter

"but was not permitted to do so.
Repairs made at Smiths Falls.
Gasket out of place. Did not
affect unit's operation."

Who did not permit him to tighten the
fuel oil filter?

A I did not allow him to do so.

Q Why?

A He had a big 18-inch monkey wrench and
I was afraid if he went to work on it he
would break the studs away and we would
be down altogether. Invariably you cannot
tighten up a leak like that.

BY MR. LEWIS:

Q You cannot what?

A You cannot tighten up a filter like that.

BY MR. SINCLAIR:

Q You go on:

"Repairs made at Smiths Falls.
Gasket out of place. Did not
affect unit's operation."

Then under "Additional comments" or
rather under comments on preparation of
Form MP-74 you say:

"Made out en route by fireman.
Booked exhaust manifold leak
when engine cold and stop fuel
oil leak at secondary filter.
He asked how to book work and
it was booked in this manner at
my suggestion."

What did the engineman do?

A The engineman was there when the discussion was on. The fireman said, "What do you want me to book?" and the engineer in a sort of three-way conversation suggested, "What should we book?" And that is what I told them.

Q This was like one man acting as secretary in front of the boss?

A That would be about it.

Q Under "Additional comments" you say:

"Heavy fog patches over most of the division limiting visibility. Fireman turned two switches leaving St. Luc shop. Blew out air reservoirs during train inspection at Monklands. This was 915 freight running extra for operating convenience."

I see the time of that trip was from 9.18 p.m. until 12.12 p.m. Mr. O'Brien, you have had a lot of experience in motive power. Would you tell the Commission about this matter of blowing out the air reservoirs. We have seen a lot of that, Mr. O'Brien. Do you have to blow out these reservoirs?

A They are actually stencilled to be blown out every four hours.

Q That is stencilled on the engine?

A There may be some that are worn out, but on the majority you will find "Blow out reservoirs every four hours."

Q Do you do that before you start a trip?

A That is usually done on the shop track.

Q Then No. 14. I think this one speaks for itself, is that right?

A No. 14, that is right.

Q That was two A units, car body type, back to back. Then No. 15 is an A unit, car body type, in the lead, with a road switcher trailing.

MR. LEWIS: I wonder if my friend would mind. This is not a matter for cross-examination, but I notice on page 14 you have this note:

"Checked and replenished flagging unit."

BY MR. LEWIS:

Q Does that mean that there was something missing in the flagging kit?

A I think there were two or three fuzees and he went over to the trimmer's shack, as we call it, and got them.

BY THE CHAIRMAN:

Q Who did?

A The fireman did. That is strictly a shop staff responsibility and the man who put the equipment on there was negligent in his duty in not having done it.

BY MR. SINCLAIR:

Q Would the trainman check the flagging kit?

A In all cases, yes. It is done in the departure yard. This was at St. Luc when we got the train.

Q He did not check it until later?

THE CHAIRMAN: He was not there.

THE WITNESS: He was not there.

THE CHAIRMAN: He comes on duty at a later stage.

BY MR. SINCLAIR:

Q In No. 5 under "Additional comments" you have this:

"Cars set off at Bedell. All signals given on engineman's side. Cars taken from St. Luc receiving yard to flat switching yard. One signal given on fireman's side."

Was that required?

A No, that was just a matter of convenience again.

Q No. 16, A unit, car body type in the lead, and B unit, car body type, trailing. Under "Details of duties performed by fireman en route" you say:

"Fireman out of cab three times, four minutes each time. When doubling over 35 cars on head end

"of train in Smiths Falls yard accepted all signals given on his side. Signals could have been given on engineman's side if head-end trainman had placed himself in proper position."

No. 7 was an A unit and A unit, car body type, back to back. Under "Details of duties performed by fireman en route" you say:

"Out of cab twice, two minutes each time. Made cut at public crossing at Monklands during train inspection. This could have been done by head-end trainman."

What does that mean, that he caught the pin?

A He went back and caught the pin and made the cut so that the traffic could proceed on the public highway.

--

--

--

Q. He got out of the cab and went back?

A. Got out of the cab and walked back.

Q. How many cars back?

A. I think we cut about eight or ten at the most.

THE CHAIRMAN: I am just curious about that. Perhaps it is not relevant. Supposing a fireman had got injured doing that, would he have been covered by Workmen's Compensation?

MR. SINCLAIR: Yes sir.

THE CHAIRMAN: He would?

MR. SINCLAIR: Yes sir.

THE CHAIRMAN: It is strictly not his duty.

MR. SINCLAIR: I know, sir, but we have found from much disputes with the Workmen's Compensation Board that it is just impossible to defeat the Workmen's Compensation claim on the ground that it is outside the nature and scope of his employment and we do not even raise the issue any more -- have not for years.

I must say this: in a number of cases in the province of Saskatchewan under what was known as the old Workmen's Compensation (1910) Act where the courts dealt with it there were at times different decisions in respect of that but that has now disappeared for a number of years.

HON. MR. McLAURIN: It has left the limbo long ago.

MR. SINCLAIR: About three years ago it finished in Saskatchewan. The one in Alberta went out a good many years ago.

THE CHAIRMAN: It is a matter of administration?

MR. SINCLAIR: Yes.

BY MR. SINCLAIR:

Q. No. 18, an A unit in the lead and a B unit trailing, car body type. I think it speaks for itself there, is that correct, Mr. O'Brien?

A. Yes, there is nothing unusual there.

Q. No. 19 -- 2 car body types A units each one back to back. This I also think is all recorded there and speaks for itself, Mr. O'Brien?

A. Yes, I don't think there is any comment on that one.

Q. No. 20, the same units 2 A's back to back operating in the opposite direction than 19. Here I notice under "Alarms and defects en route" --

"During his several inspections ..."

A. Pardon me, that is "during his second inspection".

Q. "During his second inspection fireman Reynolds cut out L4 injector, claimed it was leaking badly. This was cut back in as leak was not unusual and not

dangerous and did not warrant
action taken".

A. And "cylinder cut out for about three
minutes". Do you want me to explain that?

Q. Yes, if you would for the Commission.

A. I was up in the cab of the unit when
this fireman came back and said:

"We have a fuel injector leaking
back there".

I said:

"Oh, on this unit?"

and he said:

"Yes, I cut it out".

I said:

"We will go back and see why",
and we went back and I immediately cut
it back in to see how badly it was
leaking. That particular pipe he was
worried about the leak on there is about
6,000 pounds pressure there and there
was a little seepage leak there, about
ten drops a minute and not dangerous at
all. I told him after I got back in the
cab (he couldn't hear me in the engine-
room) that there was no need to cut
that out at all, to leave it alone.

Q. I notice under "Additional comments"
you say:

"Fireman's action in cutting out
Left 4 cylinder entirely uncalled

for and unwarranted."

A. That is correct.

BY THE CHAIRMAN:

Q. What is involved in cutting it out?

A. It is a 12-cylinder engine -- you mean what actual physical effort?

Q. What the fireman did.

A. He shoved on the rack, as they call it, and behind that is a little trip that you drop down that holds it out.

BY HON. MR. McLAURIN:

Q. It terminates its function?

A. That is correct, yes.

BY MR. SINCLAIR:

Q. Does it prevent any fuel from going to that cylinder?

A. Yes, the engine would then be working on eleven cylinders instead of twelve.

Q. Now, Mr. O'Brien, on your division in a 24-hour period how many diesel units would you have under your care at some time over that 24 hours?

A. In freight service there would be 30 to 40 diesel units pass over the division in 24 hours.

Q. And in passenger?

A. In passenger there would be 38 units.

BY MR. LEWIS:

Q. How many?

A. 38 units.

BY MR. SINCLAIR:

- Q. One of the other witnesses explained that sometimes trouble develops when they call those ahead. Is that your experience?
- A. That is our experience, that if there is any trouble at all it is not very long before I know about it due to the engine losing time and a message is dropped off at the first convenient point and we make arrangements to either have another engine to handle the job or for competent personnel to be on hand to see if anything can be done.
- Q. After they call you what do you do? Say they got you on the phone, the dispatcher's phone?
- A. I sometimes come over to the dispatcher's phone and talk to these men and suggest to them what they might be able to do to keep going.
- Q. Who is "these men"?
- A. The engineers. I talk to the engineman, ask him just what he has done and just what the symptoms are and if he is able to come in under half load after consultation with the dispatcher we agree to set off either half of the train or if we are not in a hurry for the train they might come on with one unit pulling the entire tonnage.

Q. Do you get many of these calls?

A. I have not been getting so many lately. When we were first dieselized I was getting two or three a month but the last few months I have not been having too much trouble.

Q. Now, these troubles that develop that you are called about would it be within the ability of the fireman to fix them?

A. No, on the contrary, sometimes either the fireman or whoever gets fooling or monkeying around with it, they fix the engine so it can't carry on. I had an instance in January, I think it was ...

Q. What year?

A. This year -- train 598, the engine was not making transition and that meant that it was only going about 40 miles an hour and would not make the time card speed for the train and in their efforts to correct the situation they kept fooling around until they got a couple of wires crossed thus causing the engine to shut down and they were unable to start it. This meant that we were forced to send another engine out to a place called Dalhousie Mills and pull the train in and there was about a two and a half hour delay. The original defect was a broken spline on what is known as the

axle generator which provides the necessary power for making transition. That is one instance I know of ...

Q. Now ...

THE CHAIRMAN: Mr. Sinclair, he has not finished his answer.

MR. SINCLAIR: I am sorry.

THE WITNESS: That is one instance I know of where we would have been better off if the crew had left the electrical devices alone. We have put out bulletins on a couple of occasions telling the engineers that they must not interfere with the setting of the electrical cabinets or the protective devices and we hope to have better results due to those bulletins being put out.

BY MR. SINCLAIR:

Q. The question I was going to ask you was: because of the crews -- I think the word you used was fooling around or monkeying around, I am not sure which -- but do you know how long on that unit that they caused a delay, how long it took to fix it in the shop?

A. Practically all the next day before they located the trouble.

Q. You mentioned bulletins that you put out. I have in my hand and would like to file as Exhibit 140 ...

BY HON. MR. McLAURIN:

- Q. If it had not been fooled around with how long would it have taken to fix it?
- A. Well, if they had left it alone it would have been only a matter, I would say, an average man would have found it inside an hour and corrected it but due to poking around in the electrical cabinet and the damage that was done ...
- Q. It made a major portion of the next day's work by interfering with it?
- A. That is correct.

MR. SINCLAIR: Exhibit 140 is a bulletin under the name of the superintendent, Mr. Harris, October 2, 1956 at Smiths Falls and it says this:

"There has been some trouble experienced on account operating personnel tampering with the adjustments to temperature controls on M.L. Units.

Operating crews must not tamper with or make adjustments to protective devices unless supervised or instructed to do so by District or Division Officers."

EXHIBIT NO. 140: Bulletin as above, file No. 437 Smiths Falls Division, Bulletin No. 187.

BY MR. SINCLAIR:

Q. How would you supervise or instruct them to do this as you explained and set it out in Exhibit 140?

A. If I was called to the phone which naturally I expect I would be and I had asked what the symptoms were I would probably make some suggestions to him but on the whole I would be very hesitant about asking an engineer or anybody to make an adjustment on the road because of the damage that might result.

Q. You said a couple of bulletins.

A. Yes.

MR. SINCLAIR: I would like to file as Exhibit 141 another bulletin, Smiths Falls, dated February 5, 1957 over the signature of Mr. Harris. I have given the secretary in the case of Exhibit 140 as well as Exhibit 141, Mr. Chairman, bulletins that were taken off the board. You will see people's names on them but in Exhibit 140 I did not have a photostat and Exhibit 141 I have a photostat.

EXHIBIT NO. 141: Bulletin
No. 20,
Smiths Falls
Division,
File 437,
dated
February 5,
1957.

BY MR. SINCLAIR:

Q. Exhibit 141 reads:

"Canadian Pacific Railway Company,
Smiths Falls, February 5, 1957.

Engine crews must not tamper
with or make adjustments to
protective devices not enter
electrical cabinets and interfere
with or make any adjustments to
the power contacts or interlocks
without instructions or super-
vision from Division or District
Officers."

Are those two of the bulletins you had
in mind?

- A. Those are the two, yes.
- Q. Now, to keep crews of engines from monkey-
ing have you taken any other action?
- A. There has been an instance of tampering
with a low lubricating oil setting and
as a result of that the work is pretty
well progressed, I don't know how far
right now, to **take** the knurled knob
off with which they make the adjustments
and that has been drilled and a lead
seal put in there so that we will know
if it has been tampered with.
- Q. You have sealed the switch?
- A. The regulating portion of the switch has
been sealed, the thought being there that
then it would be possible to notice by
visual inspection that it had been

tampered with. The reason for that was that someone was having trouble with a low lube alarm and in order to overcome his trouble he screwed down the protective device so that he had approximately only three pounds of lubricating oil pressure left and it resulted in burning out the crank-shaft of the engine and costing many thousands of dollars worth of damage.

THE CHAIRMAN: If you have finished this subject, Mr. Sinclair, then we will adjourn.

--- At 12.30 p.m. the Commission adjourned until 2.30 p.m.

Wednesday,

April 10, 1957

X
L-1

AFTERNOON SESSION

--- The Commission resumed at 2 p.m.

L. L. O'BRIEN, recalled,

MR. SINCLAIR: Mr. Chairman, after Mr. O'Brien stepped down this morning, he drew to my attention the fact that with respect to Exhibit 138, in August, 1956 he had two ground relay alarms, one alarm having gone off twice, and one other alarm that is not on Exhibit 138. He told me that I did not give him an opportunity of explaining to the Commission this other ground relay. I thanked him for that, and with your permission, sir, I would like to ask him about it. You will recall that the trip he spoke of this morning was on the Canadian, around Bourget or St. Leonard.

THE CHAIRMAN: There is another ground relay, on another unit, on another trip?

THE WITNESS: On another trip, yes sir.

THE CHAIRMAN: All right.

BY MR. SINCLAIR:

Q. You say you had two ground relays, you

counted the two --

A. The two on the one unit, I considered that as one failure.

Q. Just a minute, Mr. O'Brien. The two on the one unit you counted as an alarm?

A. Yes.

Q. That was the one caused by the brushes jumping, on account of the track?

A. That is correct.

Q. The other one you had, what train was that on?

A. That was on train No. 1.

Q. Was it in August?

A. That was in August..

Q. What did you do that time?

A. As a result of this ground the wheel slip light came on, which indicated to me that we were having trouble on a traction motor, and I stayed with the unit as far as Cobden on the Chalk River Subdivision, about another 90 miles. To overcome this trouble I ~~broke~~ ^{blocked} the WS-2 relay. That defeated the purpose of the wheel slip relay. Before doing this I made sure that the wheels were all turning and there was no visible danger of anything seizing. In that way I was able to carry the engine on under full power.

Q. Mr. O'Brien, do you allow or permit

enginemen or firemen to make that kind of adjustment?

A. No, it is definitely not allowable; and it was only after careful consideration and looking over all the possibility of danger that I decided to do it myself.

THE CHAIRMAN: Should this exhibit show four alarms rather than three?

MR. SINCLAIR: I would say not, sir, unless we are going to say that a ground relay being re-set and kicking again is an alarm. It could be said that way, I suppose.

THE CHAIRMAN: As long as it is understood.

MR. SINCLAIR: That is right sir. It is the way it is typed that is wrong. We would call that an alarm when we re-set it and it kicks again, as it did on the first trip described by Mr. O'Brien.

BY MR. SINCLAIR:

Q. Now Mr. O'Brien, what are the duties of a locomotive foreman in regard to power?

A. The locomotive foreman should know, that is speaking of all power, that the engine he is despatching complies with the maintenance regulations or the SL cards; and one of his primary

duties is to know that the air brakes are working leaving the shop track.

Q. Now on a diesel unit when it comes on the shop track, what is the first thing a foreman does, or the charge man?

A. They make a visual inspection of the locomotive, walk around it and try the sand, the bell and the lights and make sure they are all working, and apply the brakes and make sure they are all right; if fuel is required they give it fuel; if water is required they give it water.

Q. Do they or do they not check the MP-74?

A. Definitely they read the MP-74 to see what was booked, and if the defect booked was of such a serious nature that the engine could not continue in its normal cycle they would drain it and send it back to its home terminal; or if conditions permitted they would put it on idle and put it on a consist to go back to its home terminal.

BY THE CHAIRMAN:

Q. What is a charge man?

A. Well, in some locations we do not have a locomotive foreman; we have

what is known as a charge man. It is an outside point where the amount of business does not warrant having a locomotive foreman there.

Q. The charge man is the locomotive foreman under another name, is that right?

A. That would be it, yes sir.

BY MR. SINCLAIR:

Q. What work is involved in preparing and supplying a diesel locomotive at other than a maintenance point? Take for instance Smiths Falls?

THE CHAIRMAN: Is Smiths Falls a maintenance point?

MR. SINCLAIR: No; I would take Smiths Falls as non-maintenance point for diesel power.

BY MR. SINCLAIR:

Q. Is that correct, Mr. O'Brien?

A. It is correct, it is a run-through point for diesel power. In three cases we don't have engines come to the shop at all; we change crews right in the yard on the train. That is due to the fact that they are fast trains, 20-minute station time, and we have the crew down in the yard to change off. With the engines that come to the shop the foreman or assistant foreman, or if he is too

busy they send a machinist out, and they give the unit a visual examination, which consists of trying the brakes, the sand, the bell and the lights.

Q. On the run-through engine that the crew just changes off, is any member of the shop staff, or is he not, available if required to check the locomotive?

A. At Smiths Falls they do have a shop foreman go over; at Ottawa we don't have anybody go to the station unless we have received word ahead that the engine is giving trouble.

Q. After the shop staffs have made a check, or if no trouble has been reported on a locomotive, what in your view has the engineman or the fireman to do with regard to checking the unit?

A. Well, the engineman is responsible for knowing that his air brakes are working. He is also responsible for knowing that his classification light, his headlight, bell and whistle are working; and some of them look at the sand, but actually it isn't part of their duty to know the sand is working. They also make sure that the hand brake is released, and both the engine control switches are

set at "run". Outside of that, I know of anything else.

Q. What about the fireman, what is he required to do?

A. I omitted to say that the engineman is expected to read bulletins that are posted periodically and keep himself up-to-date on that. The engineman reads and signs the bulletins; the fireman reads the bulletins - he is not expected to sign them. They compare their watch with the standard clock, record the variation and book out.

Q. You speak of the bulletin book: Is there one bulletin book for an engineman and a fireman, or are there separate bulletin books?

A. No, just one bulletin book for the engineman.

Q. You say the fireman are not required to sign them. Do some firemen sign them?

A. I believe some of them do sign them. I don't know what is the reason for it, but they do.

Q. What checks are required of a fireman on diesel power either off shop track or at a run-through point? You have said what the engineman has to

do - and now what does the fireman have to do, or the helper so-called?

A. The helper checks the flagging kit and takes instructions from the engineman. If the engineman has something he wants him to do, he tells him. Outside of that, all he has to do is check the flagging kit.

Q. Has the engineman any responsibility, or has he not, as to the flagging kit?

A. That is the engineman's primary responsibility; he is responsible for it.

Q. What are you saying? What is your view on that? Is it a fact that he generally assigns that to the fireman? Is that what you mean?

A. He generally assigns that to the fireman, yes.

Q. Now there was filed yesterday Exhibit 129, a temporary form consisting of three sheets, and Exhibit 129-A which was a revision of those sheets. Will you look at those please? These were filed by Mr. Woodland. Do you recognize those documents?

A. Oh yes, I have seen them around for quite a number of years.

Q. Do you know anything about their source?

A. I was locomotive foreman at Outremont

when we got our first twelve engines and put them in service, and these forms were just more or less adopted from the practice in the United States. As time went on it became quite obvious to myself and many others that they were of no value whatever to us. A great deal of the work is just a duplication of work that has already been done by the shop staff - and the shop staff and electricians are highly trained. The readings taken on the road were of no value. The only one that could be of any value was the booster air pressure. In a lot of cases it was inaccurate and led to unnecessary work in the shop trying to locate non-existent defects. In other words, if you had a low booster air pressure in No. 5 throttle position, that is to be expected; but if your throttle was in No. 8 position you would probably get a normal booster air pressure. So it brought me to the conclusion that they were not being properly compiled, and after a lot of consideration it was decided that we could get along without them. There was correspondence back and forth

about it, and I believe in April of last year I put out a bulletin cancelling the forms altogether in so far as our territory was concerned.

Q. Had they been used up until that time? Had they filled in these forms MP-604 - Exhibit 130? Had those forms been used until last year?

A. Some of the men were using them, and some of them were not; they were not reliable; you couldn't go by them.

Q. Was the company placing them on their engines?

A. They were left in the locomotive foreman's office, and if they were asked for, they were given out.

Q. That is up until last year?

A. I think along about December of 1955. It kind of petered out altogether; we weren't issuing them at all.

--

--

--

Q Now, these forms, Exhibits 129, 129A and 130, Mr. O'Brien, what type of power were they for?

A They were for Alco road freight units only.

Q What type of road freight unit?

A That would be the car body type that is referred to here.

Q These forms, Mr. O'Brien, on their face show that they require patrolling by the fireman. You say they were applicable to the car body types. Were firemen ever required or were they not to patrol on the road switcher types?

A No, they were not required to patrol the road switcher types at all. In fact I think we have instructions out to the contrary, although I do not know just where to lay my hands on them, but definitely they were not required on road switchers.

Q In the Smiths Falls division was there or was there not any matter discussed between the firemen's union and yourself?

A The chairman of the firemen's brotherhood approached me and asked me for a ruling on it.

BY THE CHAIRMAN:

Q Asked for what?

A The chairman of the firemen approached

me and asked me for a ruling as to whether they would be expected to patrol the road switcher class of engine. As I recall my reply to him now it was that there were no gangways provided between the majority of the units and in any event it was dangerous to pass between them and we did not expect them to patrol.

Q Do you remember when that took place, Mr. O'Brien; when the firemen's chairman came to speak to you?

A I would say it would be around the spring of 1955.

MR. SINCLAIR: At the request of Mr. Lewis, to be found in Volume 19 at page 2435, dealing with Exhibit 114; he asked us to get an actual bulletin showing the instructions that are set out in Exhibit 114. Mr. O'Brien has supplied me with this and I would suggest that it be marked as Exhibit 114A.

BY MR. SINCLAIR:

Q This is the document that you supplied me with covering enginemen's duties; is that right?

A Yes, that is correct.

EXHIBIT No. 114A -- Bulletin
No. 255,
Smiths Falls
division.

MR. SINCLAIR: Mr. Chairman, this

deals with a bulletin issued at Smiths Falls on December 14, 1956. It is addressed to "All enginemen's books" and reads:

"Please note the attached sheets showing 'Duties of enginemen when taking charge of and before leaving diesel and steam locomotives'. These for the information and guidance of all concerned."

Attached to that is the material contained in Exhibit 114 which was filed.

BY MR. SINCLAIR:

Q Were you responsible for the issuance of this bulletin?

A Yes, sir.

Q Is it the practice for the senior mechanical officer in matters of this kind to arrange for the issuance of a bulletin like this over the name of the Superintendent?

A That is the practice on the Smiths Falls division. I go to him and show him the bulletin that I propose to issue and he approves it. He is the senior operating officer.

Q Now, Mr. O'Brien, in your experience as a general foreman and in your experience as a Division Master Mechanic, including riding diesels as part of your work, have

you ever had a fire on a diesel locomotive?

A Well, that would depend on what you consider a fire to be. I have that instance in my observations of trips where a fireman complained of smoke in the engineroom, which was just from the exhaust, and then I had another similar experience.

Q Which trip observation was that?

A Just a minute.

Q You are referring to Exhibit 139, an exhaust leak in the manifold?

A That is right.

Q That is page 13?

A That is 13.

Q There would be smoke from that in the engineroom, would there?

A The engineroom was full of smoke and my thought was when the fireman came up that he wanted to take the engine off the line altogether. I told him there was nothing to worry about, that as soon as the engine warmed up no doubt the smoke would stop, which proved to be the case.

Q Was there a fire?

A No, there was no fire; sparks flying but not an actual flame.

Q Then you would say it all depends --

A To answer the question literally, no, I have not been on an engine where

there is a fire.

Q Have you had other cases where there would be smoke? I suppose what you mean is that where there is smoke some people would think there is fire?

A That is it.

THE CHAIRMAN: It used to be thought so.

MR. SINCLAIR: It all depends on the causes of the smoke, of course.

BY MR. SINCLAIR:

Q What else did you have in mind?

A Well, when we first got our Alco engines from the United States we had a lot of trouble with the expansion joint from the manifold to the turbo-charger. If you would leave those engines idling for a considerable time there would be what you would call a souping take place and the leakage of oil would get on the outside of the manifold. Just immediately they would start working that engine hard that manifold becomes very hot and that would just smoulder and burn off. I have not been on an engine when they actually had that happen, but I have had reports to that effect.

Q Is that dangerous?

A No, we didn't consider it dangerous.

Q Would you have put on a fire extinguisher

if you had been on there? What would be the effect of putting a fire extinguisher on it?

A A lot of people were doing it, but I don't think I would. I would just let her burn. There was nothing that would take fire.

Q Have you ever had any smouldering in the electrical wiring on a diesel unit on which you have been or that you have seen?

A This one where I booked out a wheel slip, the terminal bar was throwing a little bit of a spark there but that was nothing that concerned me at all. I wouldn't dare put an extinguisher in there either. I didn't consider it was necessary. There was nothing to take fire.

Q Mr. O'Brien, I want to turn to another subject. Earlier in your evidence you said that you were responsible for engine crews on the division. That is the job of the Master Mechanic, is that right?

A That is correct.

Q As part of that job you would be responsible for hiring firemen?

A That is correct.

Q You have prepared a statement which I would like to file as Exhibit 142.

A Yes.

MR. SINCLAIR: This is entitled

"Canadian Pacific Railway Company, Smiths Falls Division." And it sets out the locomotive firemen hired on Smiths Falls division during the four-year period April 1, 1953, to March 31, 1957.

EXHIBIT No. 142 -- Details of
firemen
hirings,
Smiths Falls
Division.

BY MR. SINCLAIR:

Q That covers the entire time you have been at Smiths Falls?

A Yes, sir.

Q In charge of the hiring of firemen; is that correct?

A That is correct.

Q Have you a copy of this Exhibit 142?

A I have a copy of it here.

Q Look at that, please. You set out the number of firemen hired in that four-year period on the entire Smiths Falls division, and the total is shown as 53; that is correct?

A That is correct.

Q And then you have broken those down to show where the men came from. The first classification is men promoted from shop, 13?

A By shop we meant the roundhouse there.

Q They would be wipers or engine-house labourers?

- A Yes, sir; anybody that showed any desire that they wanted to go out to fire.
- Q Hostlers?
- A Hostlers are already firemen.
- Q The next shows the men promoted from car department, six. Would they be car men or labourers?
- A They were labourers in the car department.
- Q Next shows the men transferred from other classifications; trainmen, section men, ice gangs, nine. Would those be ice gang labourers?
- A Yes, that would be their classification.
- Q And then men hired as firemen without previous railway experience, 25; is that correct?
- A That is correct.
- Q Would those be men that you just advertised for and they would come in off the street?
- A No. I had a set-up both here and at Smiths Falls.
- Q When you say here do you mean Ottawa?
- A In Ottawa, I should say, that anybody who applied to the Locomotive Foreman for a position as fireman, I had them fill in an application, and the same at Smiths Falls. Then when the time came

that I would require a man I would look the list over and take due consideration regarding their education, their height and size and so on. Also on the back of the form it shows the number of places they have previously been employed. Taking all those things into consideration we would select a few men and write them a letter and ask them to report for further examination.

Q Taking these men who were going to start on as firemen, what would you do?

A My first contact with them was to tell them all the undesirable features that they would be expected to work at nights, Sundays and staggered hours, almost any time. If they did not like the idea they might just as well stop right now.

After that, if they still concluded they were going to go on, we sent them to Montreal for an eye test to see if they could pass the requirements for vision.

The next step was to have them take a medical examination to see if they could pass that.

Then after that we gave them a trial trip sheet, as we called it. That trial trip sheet gave the engineer on the train authority to carry this man

making student trips, and he was asked to please advise as to his progress. There was a column left for his progress.

Q How many student trips would you give a man?

A Possibly a minimum of five round trips; that is ten divisions, but there were occasions, for instance here at Ottawa, when a man had two or three trial trips in and they were stuck for a man to go on a yard engine and they would just call him in and he was on.

Q What instructions would you give him as to his duties on the engine?

A I left that more or less -- actually the fireman was left more or less to the engineman and the fireman he would be riding with and to the locomotive foreman. But I did stress on them the necessity for keeping water at the proper level. I am talking purely along the lines of steam.

There was also the question of the operating rules examination. I gave them a B Book and told them they might just as well start learning this now because they could not go out until they had written it and they would probably understand it better as they went along.

After they had these trial trips, if the engineer O.K.'d them as being satisfactory, then we allowed them to go on the list, but we did keep them off first and second-class trains for a period of six months before we would let them go on.

Q Did you give them any special training?

MR. LEWIS: Let him finish.

MR. SINCLAIR: I thought he had.

THE WITNESS: For a period of six months we kept them off time card freights and first-class trains.

MR. SINCLAIR: Would you speak up; it is hard to hear along this section.

--

BY MR. SINCLAIR:

Q. Would you give him any special instruction on diesel or not?

A. No I would not require any trial trips on a diesel at all until we got to the time when we expected he could take his ^{turn} ~~train~~ in passenger and at that time I had two or three at a time go to Montreal with the diesel inspector and he would take them out to the St. Luc shop and explain the steam generator to them and the common faults that they might expect to run into.

Q. How would you instruct them on the various types of stokers and hand-fired locomotives you might run into on the Smiths Falls division? You could run into any kind of power, couldn't you?

A. That is right, we had everything. That was left to the men who they were making the trial trips with. All we were interested in was the engineer's comment-- this man is okay for stoker or hand-fired engines, as the case may be.

Q. Would the man make it specific, like that -- okay for hand-fired, okay for ~~stoker~~-fired?

A. Yes, that is the way it was done.

Q. Now, Mr. O'Brien, based on your experience as a locomotive foreman, as a

charge man, as general foreman at St. Luc and as a master mechanic in the last number of years, some four or five years, what is your opinion as to whether firemen are required on yard diesels?

A. I have arrived at the conclusion that they do not serve any useful purpose and that they are not required.

Q. What is your view as to the safety factor of removing firemen from yard diesels?

A. The same thing applies there. I cannot see any reason for them on there whatever.

Q. What is your opinion as to whether firemen are required on road freight diesels?

A. That, of course, includes anything in road freight service. I don't think they are needed there at all. There is no useful function they have to serve there at all.

Q. What about any assistance they could be from a mechanical standpoint on freight diesels. What is your view on that?

A. They cannot be of any mechanical assistance whatever. Anything that goes wrong is usually a shop job that takes skilled mechanics to correct.

Q. What in your opinion would the contribution of a fireman be to resetting protective devices on freight units -- freight diesel units?

A. What is that question again?

Q. What contribution do you feel the firemen make by resetting protective devices on freight diesel units?

A. The very fact that he is there he can do it but it is not necessary, I don't consider, at all. The fact that he is there has been used, and he does it occasionally, but in the event of a protective device, an alarm or anything, usually the train can proceed to the next safe ^{place} ~~space~~ in which to stop. If it cannot he just stops and whistles out a flag and the engineman can make the necessary adjustments.]

MR. SINCLAIR: Mr. Chairman, through an arrangement with my friend and at his request-- I spoke to him last evening -- and with the Board's permission I would now ask Mr. O'Brien to stand down. I have finished my examination in chief. I will call another witness, and my friend will have an opportunity to arrange matters.

I think that before I call the next witness -- I am getting an awful list of things owing, Mr. Chairman -- requests that have been

made to me from time to time to file this and to file that. They begin to weigh on my conscience a little as to when I am going to catch up with them, so I would like to get rid of a few.

MR. LEWIS: I was wondering when that would happen.

MR. SINCLAIR: You were wondering when that would happen? My homework may have been neglected a bit, but I have tried my best to get some of this material.

First, at volume 20, at page 2569 at the request of the Commission it was asked, I think, that I provide a memorandum and agree on it with my friend Mr. Lewis as to the various elements of pay of firemen at preparatory time, on a road trip, terminal time, final inspection and so on.

THE CHAIRMAN: That will be Exhibit 143.

EXHIBIT NO. 143: Memorandum concerning Method of Payment for Firemen.

MR. SINCLAIR: It is all set down. I think the exhibit speaks for itself. When we were talking about this issue I think that I misstated in part the exception on final terminal inspection. I made it broader than it is in fact. The way in which it does operate is set out in this exhibit. As I say,

I think the exhibit speaks for itself, but if there are any questions on it I will try to answer them.

THE CHAIRMAN: Have you something else?

MR. SINCLAIR: Yes, I have got quite a few here.

Mr. Lewis asked in relation to Exhibit 113 which is the exhibit dealing with employee negligence ratios, at volume 20 of the transcript, pages 2563 and 2564 whether the Louisville and Nashville L & N railroad was included in the mileage given.

Miles of first main track as shown in Exhibit 113 -- employee negligence ratios -- were abstracted from "Transport statistics in the United States" issued by the Interstate Commerce Commission as at December 31, 1955.

As I say, the figure which I was asked to develop had to do with the Atlantic coast-lines, and the question was did it include the Louisville and Nashville. The ratios would cover both the Atlantic coast-lines proper and the Louisville and Nashville-- the Atlantic coast-line includes the Louisville and Nashville.

THE CHAIRMAN: Are you giving us an exhibit for that?

MR. SINCLAIR: No sir.

THE CHAIRMAN: It is just going on the record?

MR. SINCLAIR: That is right. Just a note.

HON. MR. MARTINEAU: I thought you referred to an exhibit?

MR. SINCLAIR: That was Exhibit 113. The Atlantic coast-lines includes Louisville and Nashville.

Then was a discussion at volume 21, pages 2685 and 2686, and again further on at pages 2763 and 2764 in which I, at noon, had got certain information regarding the seats on a P-1 stoker engine. I had just not been able to get in touch with the locomotive department in Montreal, but I have done so since and the information I have ^{been} given is this, and this is standard, though of course there might be slight variations from it -- but this is the way the machines were turned out of Angus according to the plan: on the left side the seat is placed on a deck rest 12-3/4 inches from the firing deck which makes the height of the seat from the firing deck 35-1/4 inches. That is the fireman's seat, the seat right across from the stoker appertenances. The level of the brakeman's seat which is located behind that seat is 32-3/4 inches from the firing deck. That would make a variation of 2-1/2 inches.

Now on those same pages, or in that

same area -- this would be in volume 21 on pages 2764 and 2765 during, I think, Mr. Fraser's examination and cross-examination, the question of clearance at elevator tracks arose, and I undertook to get certain information as to that, and I have incorporated this in a short memorandum.

THE CHAIRMAN: That will be Exhibit No. 144.

MR. SINCLAIR: Sir, I have only one copy. I have checked it with the chief engineer, and with your permission I will just read it into the record. It is not too clean a copy, but I could have it mimeographed if you like.

THE CHAIRMAN: We will give it a number and you can put it in. What is it?

MR. SINCLAIR: A memorandum in connection with clearances between grain elevators and box cars standing on adjacent tracks.

EXHIBIT 144 -- Memorandum on
elevator
clearances.

MR. SINCLAIR: I will supply copies to the secretary. I do not think there is any need to read it now.

THE CHAIRMAN: No.

MR. SINCLAIR: Then, at Mr. Lewis' request, at pages 2399 and 2400 of Volume 19 he asked that the number of

firemen and the number of trainmen be developed who had less than three years, less than two years and less than one year's seniority. That had also to do with Exhibit 12, and this might, I suggest, be filed as Exhibit 12A. It is information which is similar to information given in Exhibit 12, and that information was supplemented earlier, I think, also at Mr. Lewis' request.

The exhibit speaks for itself, and the only comment I wish to make here is that the firemen here also include -- the firemen's seniority list covers both road and yard and it is not possible to separate road and yard. There is one seniority list for firemen. The first group is seniority as at April 1, 1956, to tie in with Exhibit 12. The first figure given -- less than three years but more than two years -- is 150, exactly the same number of trainmen, and the percentage is 5.1 for firemen and 4.6 for trainmen. Less than two years but more than one year, 84 firemen, 2.9 per cent --

THE CHAIRMAN: Is there any point in reading this?

MR. SINCLAIR: No. It speaks for itself.

MR. LEWIS: I understand that the yardmen or switchmen are not included?

N-89

MR. SINCLAIR: That is right.

MR. LEWIS: These are the road trainmen.

MR. SINCLAIR: That is what you asked me to get.

MR. LEWIS: I will look at it again. I know this is not quite what I intended to ask for. I am as interested in the yardmen as in the trainmen, obviously. If your firemen include both road and yard --

MR. SINCLAIR: You were cross-examining Mr. Fraine and this is the information you asked for, and that is what I have got. You had earlier asked Mr. Gossage for a breakdown on those who passed for enginemen and we supplied that.

THE CHAIRMAN: Well, it is now asked that the trainmen should include yardmen.

MR. SINCLAIR: I will say yes, I will get it, but this will be the third time I have gone back into the same kind of records. But I will get it.

MR. LEWIS: If it is my fault for not asking for it properly the first time --

THE CHAIRMAN: We may catch Mr. Sinclair out sometime.

MR. SINCLAIR: I am quite sure that if you wait long enough you will.

THE CHAIRMAN: You had better build up some merit marks.

MR. SINCLAIR: I think that strikes some off the list. At least, I only gained one.

THE CHAIRMAN: That brings us to the next witness. We might as well have the break now.

---Recess.

MR. SINCLAIR: There was one other piece of information I intended to produce for the Commission, and I have it here. It is just a question that arose in connection with Exhibit 126, page 2, and I undertook to get the information on it. It had to do with the service of Fireman Wright -- Fireman E. Wright. That was during the evidence of Mr. Crate.

MR. LEWIS: That was the inexperienced fireman?

MR. SINCLAIR: He entered the service as a fireman on July 20, 1955, and worked until May 28, 1956. He was let off from that date till June 3, 1956, and continued to work from June 3, 1956, until the present, including the run that he had on February 25, 1957.

HON. MR. MARTINEAU: That is an exhibit?

MR. SINCLAIR: Exhibit No. 126, page 2 -- the observations of Mr. Crate.

THE CHAIRMAN: On what page?

MR. SINCLAIR: On page 2 of Exhibit 126, my Lord. It was the service record of Fireman Wright. He entered the service as a fireman on July 20 of 1955; he worked until he was laid off on May 28, 1956, and he started work again as a fireman on June 3, 1956. He was only off for a few days and he was still working on February 25, 1957, when the observation was made by Mr. Crate.

--

--

--

JAMES K. McCLEAN, sworn.

EXAMINED BY MR. SINCLAIR:

Q Mr. McClean, after completing your schooling in Dublin you came to Canada and entered the employ of the B.C. Electric as apprentice linesman in 1929. Later that year, after working there some five months, you transferred to the Kettle Valley Railway where you were a linesman for the C.P.R. for a few months and then you became a linesman for the Calgary Power Company at Calgary, and in 1930 you transferred to the Moose Jaw Power and Light, Saskatchewan, and later that year you moved on to the Manitoba Telephone System, working on exchange circuits.

You worked there until September 31 when work fell off and then you went to the Bell Telephone Company at Hamilton as a linesman. You worked there for one year, then work fell off and you went back to the Manitoba Telephone System and worked there for part of 1932.

Then in 1933 and 1934 you were working on contract installation work for the Sioux Lookout Telephone Company, Sioux Lookout, Ontario, and then for five years you were electrician for Howey Gold Mines Limited; and then in

1940 you were doing wiring and electrical repairs, being self-employed. At the end of 1940 you joined the Bell Telephone Company and after attending the Bell Telephone school at Toronto you spent five months at Lyndhurst exchange and Hyland exchange on switch maintenance work.

Later, from 1942 to 1954, you were an electrician at Chapleau for the Canadian Pacific Railway -- is that right?

A That is right.

Q You joined the service of the Canadian Pacific in 1942 as an electrician in Chapleau and stayed at that until 1954 when you were promoted assistant diesel inspector for the Ontario district, and in 1955 you were transferred to be diesel inspector on the Quebec district of the company.

A That is right.

Q Assistant diesel inspector, I think, is the correct term?

A That is right.

Q In the period during which you were working for Bell you acted, during part of that period, as the manager of their system at Chapleau, Ontario, and you left the Bell people because of

your interest in diesel locomotives, particularly as to maintenance and electrical applications in the railway field. Is that correct?

A That is correct.

Q You have attended courses in diesel work at Schenectady. In 1949 you attended a course there. And you attended a course at LaGrange, Illinois, at General Motors for two weeks in October, 1950, and **later** you went back to LaGrange, Illinois, to take an advanced diesel course at the plant of General Motors?

A That is correct.

Q Now just what experience have you had with diesel locomotives?

A From the time they came in in Chapleau in 1950 I was on maintenance work on the diesel locomotives there, being alone at the start on the electrical part, and as we increased our diesel locomotives there I had the job of training all new electricians. They would come with me on those locomotives for a period of a month to three months at a time, depending on the man.

Then I had the job of training apprentices.

MR. SINCLAIR: Mr. McClean, we

have difficulty in hearing you in this room. I am afraid you are going to have to raise your voice.

BY MR. SINCLAIR:

Q You were training apprentices?

A Training apprentices, and I also had the job of the shop track examination of units. That was during the day shift.

Q When you were promoted to diesel inspector, what was your work?

A As assistant diesel inspector I was sent to Smiths Falls for the purpose of riding engines and checking for defects.

Q You would ride which way out of Smiths Falls?

A Smiths Falls -- Trenton -- Toronto -- Windsor, at times, all on the Ontario district.

Q Going west out of Smiths Falls?

A West of Smiths Falls, yes.

Q Now, during that period, about how many miles would you have ridden diesel locomotives -- that would be in the year 1954-55?

A In the year 1954-55 it would be approximately around 52,000 miles.

Q Then you were transferred as assistant diesel inspector to the Quebec district in the latter part of 1955 and in 1956,

is that correct?

A That is correct.

Q Mr. McClean, did you keep a record of your trips?

A I did.

Q And you kept a record of your mileage?

A Of mileage and trains that I rode.

Q Yes, and did you or did you not note any alarms that occurred on these diesels?

A All alarms were noted.

MR. SINCLAIR: Mr. Chairman, I have here -- and I would like to file it as Exhibit 145 -- a statement of miles travelled on diesel units and alarms recorded by J.K. McClean, assistant diesel inspector, year 1955 as to the first sheet, and for the year 1956 as the second sheet.

EXHIBIT 145 -- Statement of miles travelled on diesel units and alarms recorded.

BY MR. SINCLAIR:

Q Looking at Exhibit 145, Mr. McClean, I notice that your total of diesel miles covered in that year is 52,793. That would be both freight and passenger?

A Freight and passenger.

Q Yes, and you had nine alarms, exclusive of boilers. And in 1956 you travelled 54,461 miles. Would that be both freight and passenger?

A That was mostly passenger; practically all passenger.

Q You had 12 alarms in 1956?

A That is right.

Q I notice in this Exhibit 145 that mileages by months are shown opposite the alarms. In some months there are no alarms, in some months, one alarm, and in some months two. I notice in this Exhibit 145 that there are two alarms -- two ground relays tripped -- on the same unit, and on the same trip. Was that one right after the other, or was there a delay between them?

A There was quite a delay between them.

Q So in that case it has been counted as two alarms?

A That is correct.

Q Do you remember that trip?

A Yes, it was between Smiths Falls and Trenton.

Q What kind of unit was it?

A A road switcher, No. 8450.

Q What was causing the ground relay?

A It was due to the main generator -- oil seepage on the main generator. It got on the insulators, brush holders and coils and was causing it to flash over. We had had trouble with it coming in from Montreal

previously. I got on it at Smiths Falls and we did some cleaning on it at Smiths Falls, but we had another ground relay action, and leaving Belleville there was a second ground relay action. The unit was cleaned again and the insulator sanded at Trenton.

Q When you say "we" cleaned it at Smiths Falls, who do you mean by "we"?

A I had the assistance of the maintainer at Smiths Falls, and at Trenton I had the assistance of the locomotive foreman.

--

--

--

Q Could the engineman or the fireman, could they have cleaned those and worked this generator?

A No, it required a stoning of the generator.

BY HON. MR. McLAURIN:

Q Does that sort of thing result in losing load?

A The ground relay could not work again unless you ~~reset the engine load with these~~ *reset the relay and the engine loaded with those two ground relays?*

Q You had practically no operation at all?

A That is right, it was unloaded.

BY MR. SINCLAIR:

Q I notice the first one in January was a hot engine alarm. Do you recall that one?

A No, I don't recall the particular trip with the hot engine.

Q What about these other ground relays, is there anything in them that you wish to draw to the attention of the commission? Is there anything unusual about them or anything of that nature?

A Well, in some cases, in August and October those ground relays were in the M and O subdivision which is between Montreal and Ottawa.

Q That would be on what kind of train?

A That was mostly on No. 1, our Canadian, No. 1 or No. 2.

Q What was causing them?

A We were running into trouble due to high speeds.

Q I notice on page 2 of Exhibit 145 a number of other ground relays. You said that this mileage was mostly on passenger?

A That is practically all passenger, yes. All the alarms are passenger alarms.

Q Every alarm on page 2 is a passenger alarm?

A Yes -- in the mileages freight but the alarms were all on passenger and the ground relay action we have had on that has been due to tension of an interlock on one of the engines which we have now discovered and it has been rectified and we have minimized these ground relays to a large extent. It was ^{also} due to vibration in the electrical cabinet.

Q Who ~~discovered~~ these, the engineer or fireman?

A No, these were discovered by myself.

Q How did you discover it?

A We made three trips in the engine-room of this particular engine that was giving us a lot of trouble. It was ~~the~~ ^{on} 1915 between Montreal and Quebec. It was ridden by an electrician and two assistant diesel inspectors and we had it under observation, all the meters on it to find out what interlock was opening up on us

and on discovery of this we started making adjustments to these interlocks and found we were eliminating this type of trouble.

BY HON. MR. McLAURIN:

Q On the ground relays you have a lack of electric current in your operation?

A Power drops off immediately and your engine returns to idle speed.

Q And immediately the engineman or fireman sets the switch the operation is restored.

A Yes.

Q Sometimes the ground relay is of little significance?

A Yes, sometimes it is of little significance. Once it is re-set 50 or 60 per cent of your time your engine will again ~~load~~ ^{load} pump. There are times when it will persist and you have to take the engine off the line when there is solid ground in some part of the unit.

BY MR. SINCLAIR:

Q Have you ridden any passenger trains in 1957 recently?

A In 1957, yes I have.

Q Have you ridden them on the M and O subdivision? The M and O subdivision is from Montreal to Ottawa?

A Yes.

Q Have you ridden them on the M and O?

A I have.

Q Are you having trouble with ground relays?

A No, not the same trouble now.

Q On the high speed track?

A On the high speed track, no.

Q And is the point you wish to draw to the attention of the commission that this was rectified by this adjustment that you made?

A This adjustment of the interlock did rectify this trouble we were having on this high speed track. We have cut down these alarms, I would guess, about 50 per cent of what we did have and think it will be less in future.

Q Now, Mr. McClean, your headquarters are in Ottawa here?

A In Ottawa now.

Q And have been for some time here?

A May 15, 1955.

Q Why are you stationed at Ottawa?

A Well, it is to be available to the dispatchers in case they should run into any trouble anywhere in the district. We have the whole district to cover. If I am required in Smiths Falls to cover the Winchester division, if there should be trouble on an engine there, also to cover our engines coming in from the west when they are completing their 6,000-mile run and going in for inspection.

Q On your passenger trains?

A On passenger trains, yes.

We like to check them for anything unusual that may have taken place and see what work has been booked on it and what work extra will be required on that unit.

Q What has been your experience riding the last part of the 6,000 miles on these trips these diesels have taken? How do you find the units running?

A The units are running O.K. and we have had very little trouble with them. There is a certain amount of oil on the floor. They have left the terminal quite clean and by the time they get back from Vancouver there are oil deposits around the engine.

Q What is your view as to oil being on the deck of the engine?

A It is not harmful. It does not affect the operation of an engine in any way. It still loads and you still get your speed, power and everything else that you generate.

Q What about the possibility of oil being there having some effect on fires?

A No danger that I can see of fire there.

Q Based on your experience, Mr. McClean, in riding diesels have you ever seen a fire on a diesel you have been on.

A I have seen a fire around the exhaust manifold. That was on account of a piece of oily waste being left up near

the exhaust legs on the manifold and it caught fire and burned itself out.

Q Did you put the extinguisher on it?

A No, no necessity. Around the manifold it is fireproof because your exhaust legs will get red hot at times. It was allowed to burn itself out. There was a little amount of smoke to it. It was more of a nuisance than any harm.

Q In your experience have you ever seen part of the electrical wiring burn or char?

A Yes, on several occasions I have had relays that have been burned out and the insulation due to overload has burned and various relays have been destroyed by overloading from short circuiting.

Q Now, what about the danger of that fire getting out of control?

A That is in the electrical cabinet and cannot spread around. The current will not stay for any length of time. As soon as your insulation goes and the wiring shorts your fuses or breaker protection will knock the current off it and you will get a certain amount of smoldering in the wiring but it will not break into flame. It will extinguish itself. The wiring runs are open in the cabinet but where they come through the unit they are in conduit or in wiring ducts where there

is no danger of fire.

Q Now, Mr. McClean, in view of your many, many miles on diesels how many crank case explosions have you had?

A I have had no crank case explosion while I was riding on a locomotive.

Q Have you seen a diesel locomotive...

A I have gone to inspect diesel locomotives after they have had a crank case explosion.

Q How many?

A Three, I recollect three of them.

Q When was the last one?

A Last Saturday, April 5th.

Q Where was that?

A At Smiths Falls.

Q Now, would you please explain to the Commission just what a crank case explosion is and what happens?

A In this particular instance it is the vapors in the crank case, a spark has come in contact and exploded it. In this case it was a piston that had stuck, a seized piston.

Q What happened?

A Well, as the engineer explained it when I was asking him what happened he noticed as he was making a brake application going into a meet point he heard a pouff back in the engine-room, a slight explosion and his engine immediately shut down and

he got a low lube alarm, the green light came on on his throttle stand. He went back after he got his engine stopped and the engine-room was full of smoke. He opened the doors to clear the smoke out and he did not attempt to restart the engine which is just as well because both sides of the engine the explosion ports were blown out.

Q Explosion ports?

A Yes, they are in the front of the engine by the main generator.

Q What are explosion ports, why are they there?

--

--

--

--

A. They are there to relieve the main bearing, to relieve pressure from the explosion off the main bearings which are in where your main generator is.

Q. Are they a safety device?

A. They are a safety device to relieve pressure. They are built very much like a venetian blind. When they explode they fold out so they can vent that explosion to the engine-room itself.

Q. If you had been back in the engine-room or if anybody had been back there could you take action to prevent this explosion?

A. Prevent crank case explosion?

Q. Yes.

A. You could not, you would never know when it was coming. An explosion doesn't give you warning.

Q. If you happened to be there what would you do? Would you go and get the extinguisher or what would you do?

A. From the instant I recognized it was a crank case explosion -- I would probably know from the smell of the fumes, a sort of acidy smell -- I would keep out of the engine-room for about ten minutes because it is usually followed by a second explosion. As soon as the crank case covers get loosened up and they can draw in oxygen and another spark comes from another

bearing you can, it is quite possible and it is quite usual that a second explosion occurs and that is worse than the primary explosion. Your secondary is generally worse. Your crank case covers will start to fly around. They have been known to come out and put a ding in the plates of the side of the engine. The crank case cover should never be touched for at least 10 or 15 minutes after an explosion and I would not recommend anybody to touch the covers until that oil was cooled down and your engine was cooled down so you would be safe.

BY THE CHAIRMAN:

- Q. This is road switchers?
- A. That is a diesel engine on a road switcher or on a road freight, car body type.
- Q. Where is the crank case?
- A. The crank case is the base of the engine, the same as your automobile, the bottom part of your engine.
- Q. How far down is it?
- A. It is at floor level in a unit, on the walkway of the unit. It is on the same level as your legs. It is in the engine-room itself above the track, not on the outside.
- Q. And these explosion ports, do they open out to the outside?

A No, they just open up to the engine-room itself, to the passageway.

BY HON. MR. McLAURIN:

Q. On a road switcher, they open up, don't they, outside?

A. No, they are still in behind the doors. It is just to relieve the pressure like the expansion plug in an automobile.

BY MR. SINCLAIR:

Q. Did you say as soon as you had the first explosion that the engine would be shut off?

A. The engine will shut down because as soon as the explosion has come your oil pressure has dropped below its 15 pounds and it shuts your engine down on account of low lube oil pressure.

Q. Mr. McClean, is there or is there not a danger of fire following from this explosion?

A. No, there is no danger of fire.

BY THE CHAIRMAN:

Q. Why do you have them in a diesel engine crank case and not in an ordinary automobile engine?

A. Well, it is possible it could happen in an automobile but it is the construction of the engine. If you were getting gasoline or any dilution into your crank case and you should get a spark develop

in the crank case of the car you would get it but the crank case explosions on a diesel engine are as rare as they would be on an automobile. You don't give it a thought when you are driving your automobile but the possibility is there.

Q. Where do these gases come from?

A. They are formed from your lubricating oil. In the MLW type of engine we have a crank case exhauster. That is a motor -- we try and exhaust as much of these fumes to the atmosphere as we can. We have more or less a ^{minus} ~~minor~~ pressure there, ~~that~~ is, a little less than the outside pressure ^{thus} ~~unless~~ it minimizes the possibility of crank case explosion. That is the idea of this crank case exhauster.

Q. These gases are always there?

A. Yes.

Q. It is a question of the spark?

A. Something has to happen. Something has to break in that engine, the piston, a hole in the top of the piston or one of your bearings get red hot. That would throw a spark of sufficient magnitude to ignite the fumes of that hot lubricating oil.

Q. And the remedy after you wait the

necessary time is what?

- A. There is no remedy. That engine has to go for major repairs to the shop. The crank-shaft has to be examined because you may have bent the crank-shaft. Definitely all your pistons and liners would have to be pulled out of the engine and with the force of the explosion your seals are sprung and there would be a water leak. If you had a water leak you would have crank case dilution then.

Q. So if you have a crank case explosion the engine is out of use?

A. You are finished.

BY MR. SINCLAIR:

Q. Now, Mr. McClean, I would like you to tell the Commission if you would in view of your many miles on passenger diesels about the dead-man control that is on these passenger diesels. You have seen this dead-man control in passenger diesels?

A. I have. I have seen them operate too.

Q. You have seen them operate?

A. Yes.

Q. Would you just explain to the Commission, if you would, how these dead-man controls operate?

A. It is a pedal underneath the engineman's foot and if he releases his foot from that you are reducing air pressure to his train

line and he will get a penalty application on his train and locomotive brakes, 20 pounds penalty application, 20 pounds reduction. The engine will immediately return to idle and if it is not recovered, that is, you ~~lock~~^{lap} your brake and if you do not recover this penalty application that you have received from removing the foot from the dead-man control your engine -- some of our types of engine will die altogether in about five minutes and they will shut down completely and they will all lose power and the engine return to idle and you have no electric power for propulsion of the engine.

BY THE CHAIRMAN:

- Q. That is in addition to the braking action?
A. It is in conjunction with the brake action.

BY MR. SINCLAIR:

- Q. How many pounds pressure is required to keep the dead-man control down, keep it activated?
A. Pounds on your foot?
Q. Yes.
A. They would vary from ounces -- I don't know, I have never tried what pressure is required by foot on the pedal but it is quite light.

BY THE CHAIRMAN:

- Q. You spoke about having seen this

apparatus work. You mean it was put into operation deliberately?

- A. Yes, sometimes accidentally lifting the foot off the pedal. It is also practiced in conjunction with you get the same action if you have a locomotive overspeed. If you are exceeding the speed of your engine -- on an 89-mile an hour engine if you go 90, 91 miles you will get a penalty application but it is identically the same and the same action takes place, knocks your engine down to idle and also cuts the power ~~down~~^{off}. You have to bring your speed down to where it is permissible running and ~~lock~~^{lap} your brake to regain power before you will regain your speed. The throttle must be shut off at all times to recover the power of your engine.

MR. SINCLAIR: That was the point I was trying to have this witness explain to the Commission.

Now, Mr. McClean at my request has made a very, very extensive number of trips and observations starting on January 25 of this year and continuing through to March 14 every time he was on a freight engine.

THE CHAIRMAN: That will be Exhibit 146.

EXHIBIT NO. 146: Trip Record
of J.K.
McClean over
various areas
consisting
of 44 pages.

MR. SINCLAIR: There are 44 sheets.

BY MR. SINCLAIR:

Q. Each of these observations were made by you,
Mr. McClean?

A. That is correct.

Q. And where did you ride when you made these
observations on these trips?

A. In the cab of the leading locomotive.

Q. In the cab of the leading unit?

A. Yes.

Q. In the cab of the leading unit of the
locomotive?

A. Yes.

Q. Over the entire trip?

A. Over the entire trip.

Q. And when you were taking times on these
trips, Mr. McClean, how did you take your
times?

A. The time was taken with a stop-watch on
all occasions except there was one
occasion where I didn't have it with me
and I marked the times in as approximate.
It is on page three.

Q. You marked that "approximate"?

A. Yes.

Q. Now, taking the first of these trips under

your "Additional comments" -- the copies I have handed to the Commission have the types of units written in so I won't bother putting them into the record. Under your "Additional comments" it says:

"Fireman back in engineroom at St. Luc failed to notice that engine lube oil pressure had dropped to 20 pounds in idle, and no notation was made on MP-74.

Fireman had right foot on cab dash panel from 5.15 p.m. to 5.24 p.m., 5.45 p.m. to 5.58 p.m. and left foot as above 6.40 p.m. to 7.05 p.m."

Now, Mr. McClean, why does the Company object to people putting their foot up on the panel?

- A. On account of the damage being done to our indicating lights, headlight indicating lights, we also have a train order light in there which has a rheostat there for giving it a variation of dimness or brightness and the value of that rheostat alone is around \$35 and we are continually having to change this rheostat on account of foot damage. We are trying to correct that for the last two years now. I have been keeping it

up to the firemen to remove their feet of the dashboard.

Q. Would that be in the car body type of unit?

A. Yes, that is in the car body type.

Q. Not in the road switcher?

A. No, there is a door in front of it or an electric panel. There is nothing to damage there.

MR. SINCLAIR: It will be noted in these observations that Mr. McClean on a number of occasions makes reference to this fact.

BY THE CHAIRMAN:

Q. I suppose the firemen are instructed about this, are they?

A. Yes, I have told them all not to put their feet up on the dashboard in front of that electrical equipment. I have instructed them not to and shown them what damage had occurred and I must say the amount of these indicating lights that are damaged on the engines that I am reporting and that is the only thing that could damage these lights. They are all from foot damage. You can see the scraping on the plastic cover of it, footprints.

BY MR. SINCLAIR:

Q. No. 2 of Exhibit 146:

"Fireman did not leave cab

except at train inspection where he assisted engineman in thawing valve frozen on main air reservoir. Assisted in switching at Plantagenet by throwing main line switch, head trainman present at time."

What is your comment on that, Mr. McClean?

A. Train 75 and 76, it is a local between Ottawa and Montreal and return. There was a hurry-up to get in and a hurry-up to get home on that one.

Q. Speak up, please, I can't hear you.

A. This is local train 75 and 76 pick-up and the reason they assist at the switches as far as I can see is more or less in a hurry-up to get home. It is not necessary.

Q. It is not necessary?

A. No, not necessary.

Q. Does this mean the fireman got off the engine and went and got off the switch?

A. That is right.

Q. And the head trainman, what was he doing?

A. He was throwing another switch further on down the track.

Q. I notice that this trip, Mr. McClean left St. Luc at 1.15 a.m. and was into Ottawa West, that is the terminal, at 6.30 a.m. That is only five hours and fifteen minutes, is that right?

A. Five hours and fifteen minutes, yes.

Q. I notice on the bottom of that:

"In every case the head trainman called all signals first and then were repeated by the fireman."

What kind of signals have you reference to?

A. The order boards. The trainman was sitting in the front seat by the door and the fireman right behind him and he would call the order board.

Q. Based on your experience in riding diesels on these road switchers, Mr. McClean, what is the position on the left-hand side as to who sits in front and who sits behind?

A. It is the trainman sits in front by the door and the fireman directly behind him by the cab heater, on that side of the engine.

Q. Ever any exceptions to that?

A. Yes, there have been. Occasionally they will inter-change seats.

Q. No. 3 observation, anything in particular here you wish to draw to the attention of the Commission, Mr. McClean?

A. No, I think that is self explanatory.

Q. No. 4, I notice under "Comments on preparation of form MP-74" --

- "1. Governor sight glass leaking oil.
2. Oil pipe below fuel pump leaking oil.

All above defects were repaired by Farnham shop staff on arrival at Farnham".

Was there anything that you could have done going over the road to make the repairs?

A. No, they had to change a gasket in the governor sight glass and it was leaking and they changed the gasket at Farnham.

Q. I notice that there is a 4a here and I would like you to make reference to that, if you would please. Maybe you might read it.

A. "With reference to trip on train 951 January 31, 1957 ex Megantic following questions were asked in conversation with fireman as to why he climbed handrail of trailing unit 8448 while train in motion.

1. Q. What do you check
in cab of unit 8448?

A. Fuel oil pressure and
other gauges.

2. Q. What could you do to
fix any low pressures?

A. I don't know.

3. Q. Why endanger your own
hide crossing hand-
rail between units?

A. I only do that on grades
at speeds of 10 to 15
m.p.h.

4. Q. Why take the risk when
units are loading okay
there were no alarms and
engineer are satisfied
that units are doing a
good job? (engineman
has stated on grade
leaving Megantic that
units were 'real
peppy')

A. It gives me something
to do."

Q. Observation No. 5 of Exhibit 146, I note
here under "Details of duties performed
by fireman" --

"Did not leave cab. Assisted
by calling signals while backing
three cars to a siding and lifting
two cars from siding at Cowans-
ville".

Then, under your "Additional comments
there is:

"Fireman assisted trainman calling
signals at Cowansville so train-
man would not have to walk over
to right side 20' to 30' to be
in a position where engineman

could see him.

MP-74 reported items were noticed (item 1 and 2 reported by trainman, item 3 reported by engineman) MP-74 was filled in by fireman."

What do you mean by that?

A. The trainman was having trouble with the drawbar assembly in front, the knuckle lifter and he had come back into the cab and advised me there was something wrong in there. I went out and examined it and at the same time the engineer told me the windshield defroster on the left-hand side was not working. The fireman entered that on the MP-74 that time.

Q. Based on your experience, Mr. McClean, who fills out these MP-74's which is the engineman's report, Exhibit 130?

A. The engineer signs them and the fireman as a rule makes them out.

Q. Who tells him what to put down?

A. Sometimes it is the engineman and sometimes it is the fireman. They just put it down on their own initiative.

Q. Trip No. 6, any comments on that? Does it speak for itself?

A. It speaks for itself.

Q. No. 7 --

BY MR. LEWIS:

Q. When the witness writes down "called signals" he is referring to hand signals, is he?

A. Hand or lamp signals, yes.

Q. For example, in six:

"Did not leave cab, called signals while lifting two cars and dropping one car at Cowansville siding".

MR. SINCLAIR: Called it across to the engineman.

BY MR. LEWIS:

Q. Called it across to the engineman?

A. Yes.

BY MR. SINCLAIR:

Q. Now that my friend has drawn that to my attention on observation six I notice an additional here:

"Fireman assisted trainman in calling signals at Cowansville so as trainman would not have to cross over to right side of cars to give signals direct to engineman."

That was similar to an earlier one of of your observations?

A. It is the same town, yes.

Q. Trip No. 7, I notice under "Additional

comments' the following:

"Fuel oil on floor of unit 4022..."
that is the leading A unit, car body --
".... was booked. This was a
very small amount of fuel oil.
Ampermeter on electrical cabinet
in cab was showing charging
between 150 amps. and 175 amps.
in eighth notch which normally
should read 25/30 amps. This
was not noticed or booked by
crew".

Where is that ammeter?

A. It is right in the middle of the unit
in the electrical cabinet behind both
the engineman and the fireman.

Q. In where?

A. In the cab of the engine.

Q. It should have been booked?

A. It should have been, yes. It was a
defective voltage regulator.

BY MR. LEWIS:

Q. I didn't hear that.

A. We had a defective voltage regulator. It
was changed at St. Luc on arrival.

--

BY MR. SINCLAIR:

Q No. 8, preparatory duties --

"1. Released hand brakes. 2. checked flag kit. 3. Walked through both engine rooms. 4. Under direction of engineman he manually closed shutters account engine temperatures being low on unit 4404."

Then, on your "Additional Comments" --

"1. Unit 4404 temperatures were low unit just out of shop. I returned same to automatic as it was not necessary to close shutters, engine temperatures would have been normal before leaving shop track.

2. At 12:20 p.m. I requested fireman to remove his left foot from dashboard after he had his foot up on dash for several minutes."

Observation No. 9 of Exhibit 146 under "Details of duties of fireman" --

"Fireman did not leave cab and was not required for switching operations".

Under "Additional Comments" --

"Entering Trois Rivieres yard, fireman called ' O.K. on No. 3 track'. He was corrected by engineman P. Boisclair that switch was lined up for No. 4 track."

Is that right?

A That is correct.

Q Why did he call No. 3?

A Just made a mistake.

Q Was there any necessity for him to call the switch?

A It was in clear view of the engineman. The engineman had a clear view of it. It was a straight track.

Q No. 10, any particular point on this, Mr. McClean?

A No, it is self-explanatory.

Q No. 11, anything particular in that one? Does it speak for itself?

A No, it speaks for itself.

Q How about No. 12 -- speak for itself?

A Speaks for itself, yes.

Q Same for No. 13?

A Yes, No. 13 that was an engine that had trouble when coming into Ottawa and I rode it out from Ottawa to St. Luc. They had transition trouble in it which did not affect the operation of the unit.

Q Could the crew do anything with it?

A The engineer was able to do it.

Q What did he do?

A Well, with his throttle he would leave it in No. 2 position until he got going about thirty miles an hour and then he would go on up into No. 4 position. There was occasionally pumping of the

contactors. It was intermittent. You could only get it if you came up to transition at a very slow speed.

Q No. 14, I notice here that you have a ground relay under alarms and defects enroute:

"Ground relay (mileage 52) action taken by engineman. He closed throttle to idle position, ground relay re-set button was pushed in by myself account standing beside re-set button. This button could have been reached by engineman. Total amount of time lost in action approx. 15 seconds."

And then under your "Additional comments" --

"Unit 3640 and 8639 are new General Motors units completed 1,000 miles. It is not unusual to experience trouble with units during running in mileage periods."

That is the break-in period?

A That is the break-in period. It was a brand new locomotive. We had various troubles on those. We call it getting the bugs out of them like a new car.

Q No. 15, any particular comment on that one, Mr. McClean?

A No, it speaks for itself.

Q No. 16?

A Speaks for itself.

Q No. 17, I note here:

 "Entering St. Luc yard fireman
 called switches while trainman road
 running board right side of unit in
 full view of engineman giving signals
 to engineman.

 Fireman made seven inspections
 of gauges engineman's side enroute.
 Total time spent on engineman's side
 approx. seventeen minutes."

What does that **last** little comment mean
there, kMr. McClearn?

A He was on the engineman's side looking
 at the gauges.....

Q What gauges?

A Well, you have your fuel oil pressure
 gauges. It is on a road switcher.

Q Where are they?

A They are all directly in front of the
 engineer.

Q Now, I notice here under alarms and
 defects:

 "No alarms, no defects."

And then up on the top:

 "Unwarranted action by fireman
 (as noted below)."

And then on page 17a and I would like
you to read that if you will and explain
it if there is any need for explanation.
It is 17a and b.

BY THE CHAIRMAN:

Q There is a note on page 17. This is an amplification of that note, is it?

A It is, yes.

BY MR. SINCLAIR:

Q Would you read that please?

A That is on February 20, 1957, train 916, units 8449 and 4410, one is a road switcher and the other a B unit cab type:

"Fireman C. Naudette left cab of unit 8449 while train speeds were 47 m.p.h. and without any instructions from engineman or myself proceeded:

1st. to open door of engine-room at Governor and close same.

2nd. to open door left side of unit by engine radiators look into engine-room and

then close doors.

3rd. to proceed around front of unit to right side at which time locomotive speeds were 50 m.p.h., at this point engineman N. Campbell blew whistle to attract attention of fireman and when fireman turned to face engineman he was waved by engineman to come back to cab, which call he ignored. Fireman then proceeded to open engine-room door right side of unit by engine

shutter control electric panel. At this point it was quite evident that fireman was attempting to change the normal automatic operating temperature to other operating temperatures of his own liking, in spite of the fact that engine temperatures were normal before he left cab at 140 degrees. Pointer of engine temperature gauge which gauges directly in front of engineman was at all times enroute in 'normal operating zone' of gauge.

When fireman C. Naudette returned to cab I questioned him as to the safety of going out on running board of unit 8449 road switcher at locomotive speeds from 47 m.p.h. to 50 m.p.h., to which he admitted that it was not a safe movement to make. On questioned why he went out to adjust shutter control to which he answered engine temperatures were from 5 degrees to 10 degrees low, and that he had found shutter on left side stuck open, to which I advised him that this was not true as I had checked shutters both sides by looking out cab windows and had noted were normally closed also while watching fireman while he was out on running board and noticed he had not closed the already closed left-side shutter, I then drew his

"attention to the fact that if he had closed left shutter and if he had found it stuck open temperatures of engine should normally increase and drew his attention that gauge which was in good condition had remained at original normal operating temperature of 140 degrees."

THE CHAIRMAN: I think we will adjourn.

--At 3:55 p.m. the Commission adjourned until 10 a.m. on Thursday, April 11, 1957.

Amended ms

ROYAL COMMISSION ON EMPLOYMENT OF FIREMEN
ON DIESEL LOCOMOTIVES IN FREIGHT AND YARD
SERVICE ON THE CANADIAN PACIFIC RAILWAY

27

PROCEEDINGS

DATE: April 11, 1957

PLACE: Ottawa, Ont.

PAGES: 3593 - 3754

VOLUME: 27

E. L. FEATHERSTON
SHORTHAND REPORTER
241 MANOR AVENUE
ROCKCLIFFE PARK
OTTAWA, CANADA

2

ERRATA

Please make the following corrections
in the volumes and on the pages indicated.

<u>Page</u>	<u>Line</u>	<u>Now reads</u>	<u>Should read</u>
<u>Volume 14</u>			
↓1750	14	1940	1949
1763	3	Olsen Carruthers	Osler Crothers
↓1765	29	Carruthers	Crothers
↓1803	2	weigh	way
↓1804	15	"	"
↓1806	10	"	"
↓1818	26	tail-end	head-end
↓1832	15	McIntyre	MacTier
↓1839	1	cards	cars
↓1840	27	foreman	fireman
↓1841	8	"	"
↓	30	flower shed	flour shed
↓1842	2	" "	" "
	5	" "	" "
	7	" "	" "
	8	" "	" "
	9	" "	" "
	11	" "	" "
	15	" "	" "
	17	" "	" "
	20	" "	" "
↓1850	19	four	forty
↓1851	10	three	thirty
↓	27	McIntyre	MacTier
↓1856	25	Machado	McAdoo
↓1861	27	Colleen	Killeen
	28	"	"
↓1862	14	"	"
↓1863	7	passed	past
	10	conductor	dispatcher
↓1864	20	Colleen	Killeen
	27	"	"
↓1865	8	"	"
	13	"	"
	20	"	"

I N D E X

WITNESSES:

McCLEAN, J.K.	
Exam. by Mr. Sinclair....	3594
Exam. by Mr. Lewis	3612
O'BRIEN, Leo Leonard	
Exam. by Mr. Lewis	3644
BYBEE, Arden	
Exam. by Mr. Sinclair....	3685
Exam. by Mr. Lewis	3729

EXHIBIT:

No. 147 - Canadian Pacific Railway, mechanical examination book for locomotive enginemen, firemen and helpers 3616
---	------------

ROYAL COMMISSION ON EMPLOYMENT OF
FIREMEN ON DIESEL LOCOMOTIVES IN
FREIGHT AND YARD SERVICE ON THE
CANADIAN PACIFIC RAILWAY

Proceedings of public
hearing held at Ottawa,
Ontario, Thursday, April
11, 1957

PRESENT:

Hon. R.L. Kellock,	Chairman
Hon. C.C. McLaurin,	Member
Hon. Jean Martineau,	Member
Douglas M. Fraser,	Secretary
A.R. Winship,	Asst. Secretary

APPEARANCES:

D.W. Mundell, Q.C.	Representing the
C.J.A. Hughes, Q.C.	Commission
I.D. Sinclair,	Representing the
Allan Findlay	Canadian Pacific Railway Company
David Lewis,	Representing the Brotherhood of Locomotive Firemen and Enginemen

Thursday,
April 11, 1957.

27th DAY
MORNING SESSION

--- The Commission resumed at 10.00 a.m.

J. K. McCLEAN, recalled,

MR. SINCLAIR: Mr. Chairman, we were dealing at adjournment time yesterday with Exhibit 146.

THE CHAIRMAN: Yes, you had finished page 17.

MR. SINCLAIR: Yes sir.

BY MR. SINCLAIR:

Q. Mr. McClean, I turn now to Sheet No. 18 of Exhibit 146. Have you any comment on that?

A. No, it is self-explanatory.

Q. Sheet No. 19; I think that **also** speaks for itself?

A. It speaks for itself.

Q. As does Sheet 20?

A. Twenty speaks for itself.

Q. And 21?

A. Twenty-one speaks for itself.

Q. And 22?

A. It speaks for itself.

Q. What about 23?

A. It speaks for itself.

Q. Will you look at page 24 of Exhibit 146. I would draw the Commission's attention to the comments on preparation of form MP-74:

"Form MP-74 was filled in
by fireman before departure

"from St. Luc shop track, i.e.
'examine units, check water,
fuel oil, test sanders."

A. That is a general practice, because that is what is booked on a lot of them. They are not expecting trouble, and that is what is always booked on the MP-74. Sometimes they book "Examine unit - unit O.K." Sometimes they write it out in full, "Examine unit, check water, fuel oil, and test sanders." If at any time on the road they develop trouble they would add to it and complete the MP-74.

Q. Trip No. 25: Under "Details of duties performed by fireman en route" you say:

"Fireman assisted head train-
man at Hudson, Bourget, and
Blackburn in throwing main line
switches while setting off cars.
This is a practice on this train
to enable crew to get into
Ottawa as early as possible."

That is the same move you dealt with at
page 2 of Exhibit 146?

A. That is correct.

Q. And trip No. 26 is the opposite direction of that movement; it is a pick-up train, apparently, as can be seen from the comments under "Details of duties performed by

fireman." As shown by Mr. McClean's observations, it seems to be a pretty regular practice for the fireman to get out, go ahead and throw the switches on this train. In each case that it did occur, on your observation, Mr. McClean was there any necessity for it in your opinion?

A. No, there was no necessity; it was a case of expediting.

Q. Is it a necessity on this train?

A. No, it is not a necessity at all.

Q. Is this train not running on a tight schedule?

A. No.

Q. It is a fourth-class train?

A. It is a pick-up train, fourth-class.

Q. On Sheet No. 27 of Exhibit 46, under "Additional comments" you say:

"Fireman made six trips to engineman's side of unit en route to examine gauges and call signal blocks - total time on engineman's side 18 minutes, 58 seconds."

What occasions and where would they be?

A. Fuel gauge, booster pressure gauge, and all the gauges - they are directly in front of the engineman on his throttle stand; to see them you must get over

on the engineer's side.

Q. Trip No. 28 - what about that? Does it speak for itself?

A. That speaks for itself, yes.

Q. No. 29 - under "Details of duties performed by the fireman en route" you say:

"Out of cab once at train inspection point Monklands for five minutes, 40 seconds. Assisted trainman by calling signals at Bratt siding, Montreal, while setting off 10 cars next to locomotive.

Additional comments:

When setting off cars at Bratt siding trainman could have given signals direct to engineman by walking across the right side which would have taken a bit more time. Conductor who had walked up from rear could also have assisted trainman in making set-off."

Have you any comment there?

A. No. That is a bad place - a bad curve; but if the trainman gets on top of the cars, or gets away out on the track where he would be visible to the engineer, it could be made; it is

possible to make it setting off cars.

Q. Do the tail end crew always walk up there?

A. Anytime I have ridden on that job the conductor comes to put his way bills in a box at that siding for the yard.

Q. He has to come up?

A. He comes right up to the east switch of that siding.

Q. Sheet No. 30: No comment on this one, I think?

A. No comments, no.

Q. No. 31 - it speaks for itself?

A. It speaks for itself.

Q. The same is true with respect to 32 and 33?

A. Yes, they speak for themselves.

Q. Trip No. 34, under "Additional comments" you say:

"At Farnham yards fireman assisted engineman by giving signals from door right side of unit while setting off 45 cars from east end of track 4 to main line."

What does that mean, Mr. McClean?

A. The fireman was leaning out the window of the cab door on the engineer's side looking back on the train.

Q. Was the engineer looking back?

A. Yes - well, he could have looked back too. His sight would have been impeded by the fireman being in the door, but he could do the same thing himself. He could have looked back himself.

Q. Why would the fireman have done that? Why would he walk across and stick his head out the window, do you know?

A. I don't know.

Q. No. 2 of "Additional comments":

"Fireman changed ends of
unit to assist engineman."

What does that mean?

A. On changing ends on a locomotive you have your brake handles to set up - you put your brake handle, your reverser handle on the throttle stand; this was done by the fireman.

Q. That is, you release the throttle lever and the brake lever; they are detachable?

A. Yes, when you are changing operating ends.

Q. You disconnect them and take them to the other end, and connect them up?

A. That is right.

Q. What was the engineman doing when this was going on?

A. He was on Unit 4093, which was actually the trailing unit after the ends had

been changed.

Q. What was he doing, do you know?

A. I think he was gathering up his lunch pail or clothing and moving up to the other unit.

Q. Comment No. 3:

"Fireman operated units
alone in cab from main line
east end of yard to track 6
as far as turntable while engine-
man was in cab of trailing unit
4093.

What does that mean?

A. After we had moved along, the fireman had moved the locomotive from the east end of the yard and track 6 as far as the turntable, and the engineman had come up to what was now the leading unit from the trailing unit.

Q Is Mr. Leboe a qualified engineman,
do you know?

A I believe he must be; he operates a unit
very well. I do not know if he is
qualified or not, but I imagine he is.

Q Page 35, any comments on that?

A No comments.

Q Page 36; does it speak for itself?

A It speaks for itself.

Q The same thing for page 37; it speaks
for itself?

A Yes.

Q Page 38, under "Details of duties per-
formed by fireman" you say:

"1. Out of cab 3 minutes
37 seconds. Train stopped at
Renfrew for inspection. Fire-
man called distance while
setting off two cars to cars
already in siding."

What does that mean?

A We were setting off a car at Renfrew and
the fireman called the distance, like
one or two cars still to go to where he
was putting off this one car, but at the
same time the trainman was in clear view
of the engineer.

Q On the ground?

A On the ground.

Q And on whose signals was the engineer
operating?

A He was looking at the trainman; he could also hear the fireman.

Q Under "Details of duties performed by fireman" you continue:

"At Pembroke while setting off two cars fireman lined up switch for No. 2 siding to assist trainman walking back to cars."

A At Pembroke there are two switches to move and there is an industrial siding there. The trainman went ahead to throw the west switch and the fireman got off to throw the switch into the siding.

Q Was that necessary, Mr. McClean?

A It saved walking back two cars for the trainman; it hurries the operation.

Q Then page 39 of Exhibit 146, under "Details of duties performed by fireman" you say:

"1. Out of cab while train stopped at Monklands for train inspection, six minutes, 0 seconds. Signals were called by fireman picking up cars at Smiths Falls east main line. Fireman threw one switch on shop track at St. Luc yard."

Then under "Additional comments" you say:

"Not necessary to give signals to fireman while picking up cars at Smiths Falls if train crew positioned themselves on engine-man's side but this would take a little longer. Fireman threw switch at St. Luc shop track account head trainman got off engine at entrance to shop lead."

Is that the whole story?

A That is the whole story.

Q Page 40 I think speaks for itself?

A It speaks for itself.

Q Page 41?

A It speaks for itself.

Q Page 42?

A It speaks for itself.

Q Page 43, under "Details of duties performed by fireman" you say:

"1. Out of cab 3 minutes
45 seconds while train stopped
at Mayhew for inspection. Fire-
man threw SS switch --"

What is that?

A A spring switch.

Q (Reads):

"-- at Carleton Place while
trainman was back setting off
eight cars. This was to save
trainman walking back up to
set switch."

How do you throw a spring switch?

A Apparently you just go one way through it.

Q Is it operated by hand?

A It has a hand lever.

Q It is a combination type of switch?

A A combination spring.

Q Then on page 44 under "Comments on preparation of Form MP-74" you say:

"Booked: Check screen
filter on shutter airline.
This item was booked on MP-74
by myself."

A That was booked by myself. The screen filter on the shutter airline was dirty, or suspected of being dirty.

Q Now, in making these 40-odd inspections on freight moves, Mr. McClean, do you or do you not notice any changes from the days when you were riding freights a lot of times in 1955?

A Yes; there are more engineroom inspections now than there were in 1955. The fireman reports back to and checks the engineroom to a far greater extent than in 1955.

Q Do you notice from your riding of passenger trains recently what the situation is?

A No, they have not as many engineroom

inspections on passenger trains. In fact it seems to be dropping off considerably now to what it used to be last fall.

Q We have had evidence, and you have given some of it, Mr. McClean, as to alarms and their occurrence. Is it or is it not possible for a fireman to prevent an alarm from a preventive device?

A No. He has no forewarning when an alarm is going to happen and he could not possibly take any preventive measures for an alarm.

Q What about a hot engine?

A Well, you cannot tell when you are going to get a hot engine unless you were standing right at the gauge and watching it go up to 185 degrees on an Alco unit or the Montreal Locomotive unit, or it would have to go up to over 200 degrees on a General Motors.

Q Have you had any occasion to instruct firemen concerning dealing with hot engines when they see temperatures moving around on the gauges?

A No, we give no instructions on that whatsoever.

Q Have firemen --

A We will show the engineman where his

manual control is on the Alco, but you have no manual control on the General Motors.

Q Has there been any trouble with people to your knowledge in your district tampering with the --

A We have found --

Q Just a minute, --tampering with the settings of the temperature controls?

A We have found a lot of this tampering; those temperatures have been tampered with. I don't know where it has been done, but it must be after it has left the shop and before it is returned. We find the temperature rating has been changed.

BY THE CHAIRMAN:

Q Are the diesel cylinders water-cooled?

A Yes.

Q That is the system you are speaking about?

A There is a thermostat in your water system that controls the temperature. It starts up a fan and starts cooling your water through your radiators.

BY MR. SINCLAIR:

Q On these diesel units does the temperature vary over a trip normally?

A Oh, it will.

Q Or does it not?

A It will. You will have 30 or 40 degrees difference in temperature. You can look at your gauge one minute and it may be around 140 degrees, or it might be as low as 130 degrees. If you go back in ten minutes it might be around 185, 180, 170 degrees. It is your fan. It allows your temperature to get so warm and then your fan starts in and the shutters will open and you get a cooling period for the water. It cools off the water considerably before it starts the cycle back up to warm.

Q If you went back in an engineroom and saw the temperature, say on a General Motors unit, around 185 on the gauge, would you take any action?

A No action at all; that would be quite normal.

Q Say you went back in and saw it at 150, and ten minutes later it was at 180, what would that indicate?

A That is quite normal; that would be a normal operation.

Q Would it be harmful to have an engine off the automatic when this situation did occur?

A Well, you could start ruining your engine if it was run at an incorrect temperature. If the engine was

operating all right and you figured it was operating too warm and started putting it on manual cooling, you would get a too cold engine. Under 120 degrees temperature, it is not recommended by the manufacturer to operate a unit; that is to load a unit, under load.

Q When an alarm occurs or one of these protective devices apply what action, if any, can an engineman or fireman take?

A Well, it depends on the type of control that is tripped. There is the ground relay which would have to be reset. Then if the engine overspeed tripped it would have to be reset to get the engine back on the line. With the low lube oil, on the General Motors there is nothing you can do. On the Montreal Locomotive engine, the Alco engine, there is nothing you can do. If there is a low lube oil alarm there is a switch that is now sealed on account of having been tampered with previously.

Q What about on the General Motors?

A On the General Motors you have a plunger type switch on your governor which would have to be pushed in manually.

BY THE CHAIRMAN:

Q What does that do?

A In the case of low lube oil pressure, if you have a low lube oil pressure existing and you try to push that switch in, it won't reset; it is impossible to reset. If the low lube oil pressure is still existing that is the situation. Generally it will build up the pressure and you can reset it.

Q If it will not, then you have to leave one unit non-operating?

A That is right. If it kicks back again there is absolutely nothing you can do. You cannot start it; you cannot get it on the line. Your unit is lost.

The same way with engine over-speed. On a General Motors if your engine overspeeds and persists in over-speeding there is absolutely nothing you can do, your engine is lost to you.

Then as to the ground relay, if you get a consistent ground relay action; if you reset it and you continue to get a ground relay you are going to do damage somewhere, perhaps a flashing in the main generator. It would have to be left to be repaired at the next terminal.

In that way, you would try it a few

times and if you did not succeed you would shut down the engine and proceed to the terminal.

Q Is it necessary for any reason to listen to the motors for sounds which might indicate something, Mr. McClean?

A If you were qualified to recognize sounds you could listen to a motor for unusual noises.

Q What can you do then?

A Nothing. If you have an unusual noise there has been damage done to the engine. It is internal. Then you either shut it down, or it will shut itself down if you wait long enough. You can be confused. There may appear to be noises, rocker-arm noises, that are not of a serious nature in an engine and the danger is that if anybody listens to noises on an engine they may hear a noise and shut down the engine when there is nothing wrong with it.

Q In your view, Mr. McClean, and based on your experience, what is your opinion as to whether firemen are required on diesel freight or yard units for mechanical or electrical reasons?

A In my opinion, no. He is not in position; I have never seen them

bring an engine that has failed on the road that they have repaired. They might reset a ground relay but not repair an engine on the road and bring it into a terminal.

Besides they have no spare material on the unit to make repairs. They have no catalogues where they can wire ahead information to the terminal for what part is defective and needs replacement. They have no blueprints. They have no drawings of the electrical set-up of the unit. They have no piping diagram for fixing pipes on the engine. Besides that they do not have the technical knowledge to be able to determine as to what their trouble is and be able to do a complete repair job.

MR. SINCLAIR: Please answer my friend.

--

--

EXAMINED BY MR. LEWIS

- Q Mr. McClean, did you think, when making these inspection trips, that removing the lunch pail was a final inspection duty?
- A No, it is not a final inspection duty, but this is to show that that was the last action taken on leaving the unit on arrival at the terminal.
- Q But the sheet asked you to put down the final inspection duties performed by the firemen. What was the purpose of putting down "Removed lunch pail"?
- A That was to show that was the last action taken by the fireman after he applied his brakes.
- Q Would it not have been more usual for you just to say "None" or "Nil"?
- A It could have been placed that way.
- Q By any chance is there any vindictiveness in that phrase, "Removed lunch pail", which appears in every sheet?
- A No, there is no vindictiveness.
- Q It is just your observation?
- A My observation, observed by myself.
- Q And these dashboard things that the firemen's big boots are constantly damaging, have you ever seen a trainman with his feet up on the dashboard?
- A I have.
- Q And have you seen shop men eating their

lunches in the cabs of engines?

A I have.

Q And do they put their feet on the dashboard?

A They do.

Q So that the damage to the dashboards might just as easily be the result of their actions as of the firemen's actions?

A It could possibly, but I have inspected units leaving the shop terminal and when they come back they have come back in a damaged condition. We don't know where it is done or when it is being done, but we know that the damage has been done on the fireman's side, and we have requested them -- I always request the fireman to take his feet down off the dashboard on account of the damage being done to the instruments on the panel, on the dashboard.

Q I appreciate that feet should not be on there.

A That is right, in the same way that we would not want our feet on the dashboard of an automobile.

THE CHAIRMAN: As long as there is a place to put one's feet they will be put there.

MR. LEWIS: That is exactly it.

THE WITNESS: It will never be stopped.

BY MR. LEWIS:

Q I suggest to you that in that emphasis in your report there seems to be a note of vindictiveness too?

A No, there is not. We have tried hard on account of the cost of the material, especially on the rheostats of electrical units. We try to bring down the repair costs on account of the damage to these rheostats.

Q These electrical cabinets which are closed and where you have various things, are they air-tight?

A No, they are not air-tight.

Q And if a fire occurs in a cabinet the fire could easily spread out of the cabinet?

A It is metally enclosed.

Q Pardon?

A It is metally enclosed.

Q But the fire could still spread up through some cracks, could it not, through which the fire could come up? Is that not right?

A When the fire came out it would have to be able to get in contact with something else to ignite. There is no danger of fire from any crack in that electrical cabinet coming in contact with anything inflammable.

Q There is no danger at all of a fire doing that?

A Not to my knowledge.

Q You said, I think, that the fuel oil presents no danger of fire at all?

A No danger that I can see. I have never seen a fire created by fuel oil leaks on the floor of a diesel locomotive.

Q You are no doubt acquainted with the mechanical examinations that people have to sit for?

A No.

Q Issued by the Canadian Pacific Railway?

A I know that. I have not read it thoroughly.

Q Pardon?

A I have not read that book thoroughly.

Q Well, I do not have enough copies to file with the board. I have no doubt my learned friend has.

THE CHAIRMAN: You are putting this in?

MR. LEWIS: Yes.

MR. SINCLAIR: I am instructed that they are not in effect on the Canadian Pacific at the present time.

MR. LEWIS: Mr. Chairman, I appreciate that they have been withdrawn within recent weeks or months -- I do not know which it is. I have been instructed of that as well.

THE CHAIRMAN: You are entitled to cross-examine.

Exhibit 147. What is it?

MR. LEWIS: Canadian Pacific Railway, mechanical examinations for locomotive enginemen, firemen and helpers.

EXHIBIT No. 147 -- Canadian Pacific Railway, mechanical examination book for locomotive enginemen, firemen and helpers.

THE CHAIRMAN: What is the date of it?

MR. LEWIS: The dates vary, Mr.

Chairman. It is a looseleaf book with various bulletins. The dates on the bulletins may vary, although I think the one I have is all October, 1955. I said "All October" but I am wrong. Some are September 1955, and so on.

MR. SINCLAIR: There are no bulletins in there.

MR. LEWIS: Well, forms or whatever you call them.

THE CHAIRMAN: Is there a page in the front of it with date of issue of the book?

MR. LEWIS: No sir.

MR. SINCLAIR: Oh yes, there is.

MR. LEWIS: On each form there are different dates.

THE CHAIRMAN: What is the date of the form you have in mind?

MR. LEWIS: The date of the form is October, 1955.

THE CHAIRMAN: Is there a page number to it?

MR. LEWIS: The pages also appear to be related to each set of forms, and the particular one I am going to refer to is form MP505, issue "B" October, 1955, and it is a general examination for helpers on diesel electric locomotives, chief of motive power and rolling stock, Montreal. On page 2 of that form at the bottom of the page there is a question and an answer, being question No. 10, and it is in these words:

"Q. What hazard exists with fuel oil leaks?

A. The possibility of fire."

THE WITNESS: The only possibility of fire on account of fuel oil leaks that I would know of is if there was an accumulation of waste material allowed to accumulate on the floor, and then it would have to have some form of ignition, a match, a cigarette or something dropped on it.

BY MR. LEWIS:

Q Or perhaps, as I have read in some places, Mr. McClean, perhaps a molten piece of shoe brake that is thrown off?

A That would not come up into the cab.

Q It would come up somewhere where there is some oil?

A Unless the oil would get down on the

frame of the engine, and as far as fire hazard there I do not see where it would not burn itself out, where there would be any danger to it.

Q You cannot see any danger to it?

A I cannot see any danger of enveloping the unit in flame.

Q Pardon?

A Of enveloping the unit in flame; I cannot see it.

Q I do not suggest it would envelop the unit in flame. We were just talking about a fire occurring, whether small or big?

A There is a very remote possibility. The odds are very high.

Q A very remote possibility?

A You could have --

THE CHAIRMAN: We cannot hear when you drop your voice.

THE WITNESS: There would be a very very remote possibility of a flame occurring from a fuel oil leak on the outside of the unit igniting around the wheels, the journal boxes, the braking equipment.

BY MR. LEWIS:

Q Is there any possibility of a fire occurring at all or do I get the impression from your evidence that there really is none?

A A fire is always possible. It is a

remote possibility. It is very remote that you would get a fire from any of these oil leaks. A fire can be got from striking a gasoline truck. You can hit an object on the road and develop a fire, a serious fire that will destroy your unit.

Q But is not the danger of fire increased by the fact -- you know much more than I do about these things -- that you have an accumulation of oil, either lubricating or fuel, and you get a mixture of dirt with that oil and that sort of thing creates a firehazard. Is that not right?

A E ternally but I would not say internally, no. I have seen an engine that has been, that had caught fire on account of striking a gasoline truck and the fire did not reach any place where there were any oil leaks. The part where the oil, where there had been oil leaks around the engine, that part of the engine had not been touched at all. It was only the cab where there are no oil leaks.

Q In that particular fire?

A In that particular case, yes. That was one unit I examined. I cannot speak with any great authority. I have never seen a serious fire on a locomotive.

Q But it has been established several times that you provide each unit with

a fire extinguisher?

A We do, yes.

Q And I do not imagine it is there for fun?

A No.

Q It is because you anticipate the possibility of fire as the result of the action of the engine and the parts that it is made up of?

A It is a safety precaution. You can have any kind of fire hazard. If you strike anything on the road you need a fire extinguisher for that.

Q Do you know whether you had fire extinguishers on your steam engines?

A The steam engine is power I don't understand.

BY THE CHAIRMAN:

Q Is what?

A It is power I don't understand.

BY MR. LEWIS:

Q Have you ever seen a fire extinguisher on a steam engine?

A I don't know if they have them or not.

Q Have you seen one?

A No, I haven't seen one.

Q And suppose for the moment there was --

A I believe they have a water tank there with a hose attached to it that they could use.

Q Pardon?

A They have a water tank behind that engine and they have a hose attached to it. They could use it for a fire extinguisher. They have a water pump on the engine, I believe.

Q You have a water system on your diesel engines?

A I don't know steam engines. I don't know them, but they have pumps, I believe, that can put water along the deck in there. They have no electrical apparatus on a steam engine that is worth mentioning, just for lighting, so water could be applied to a steam engine where on a diesel-electric water is highly dangerous to be applied to any electrical equipment. You can endanger yourself by using water.

Q And I suggest to you that because of the hazard of fire which is present in the case of a diesel engine you provide it with a fire extinguisher containing the chemicals that would be appropriate?

A I cannot see it myself. You have got a steam generator there. I have seen the domes get hot on steam generators but that does not come in on this issue. I have never seen a fire extinguisher used on a diesel and I have travelled with them quite a lot.

Q You have never seen --

A I have seen when the engine came into the shop where the fire extinguisher had been used on the exhaust manifold which was both a waste of the fire extinguisher or the applying of the fire extinguisher for no good reason at all. They could have operated without applying the fire extinguisher.

Q You are quite certain --

A Somebody was under the impression there was smoke coming from the exhaust manifold.

Q You are quite certain that in no case could there be any danger from that?

A From exhaust manifolds?

Q From exhaust manifolds?

A I cannot see it. I don't know what there is to burn. These exhaust flags on a diesel unit are sometimes red hot. They are like a chimney. The construction of the unit is to allow that heat to be able to -- it is out of the roof where it can get out.

Q It is up above?

A Yes, it is up above and it is out of the danger area.

Q And I suppose that the people who used the extinguisher on that were sort of following the old established rule which I have noticed in the Uniform Code,

No. 108, if I remember correctly, that whenever in doubt take the safe course?

A That is probably what it was. They saw smoke and they figured it is a fire.

Q I showed you this bulletin of October of 1955, and I was interested to note in an earlier one --

THE CHAIRMAN: Are you putting this in?

MR. LEWIS: I do not know whether my friend would have copies of this. Perhaps it is not necessary. I will just refer to it and that will be sufficient. You will remember that I referred to issue "B" of October, 1955, and here is issue "A" of January, 1953, and the same question and answer occur. Right?

THE WITNESS: Yes, the same question and answer.

BY MR. LEWIS:

Q And the provisions as to what to do in case of fire?

A Yes.

Q A note has just been passed to me, Mr. McClean, which instructs me that not very long ago the fire department in the town of Weston was called out to put out a fire on a C.P.R. diesel engine. Do you know anything about that?

A I do not. I have had no report of it.

Q Have you heard about fire departments

having to put out fires on diesel engines?

A No.

Q C.P.R. or C.N.R.?

A No, I have not.

Q Never heard of it?

A No, I have not.

Q Have you read of that having happened
in the United States?

A No, I don't believe I have. I have not,
no.

Q You have not done that either?

A Not to my recollection.

Q Another suggestion was made to me last
night, Mr. McClean, and I smile because
it is a little embarrassing and I do not
want to point out to you how each one of
us is weak, being a human being. I was
also instructed last night that you had
some difficulty once with an engineer on
a train because you smoked your cigar in
the engine room and the engineer insisted
that you could not do that. Do you recall
an incident like that?

A I don't recall the incident.

Q You do not?

A Of an engineer telling me not to smoke in
the engine room.

Q You don't recall having an argument with
the engineer about it?

A No, I don't.

THE CHAIRMAN: Perhaps some of us could sympathize with that engineer.

MR. LEWIS: You speak, sir, as a non-smoker.

HON. MR. McLAURIN: I have already ducked.

BY MR. LEWIS:

Q Mr. McClean, for the record could you enumerate the causes of a possible crankcase explosion?

A The causes of crankcase explosion?

Q Yes. What would cause a crankcase explosion?

A It is lubricating oil vapours in the crankcase some way getting ignition. That could be through bearing wiper failure --

BY THE CHAIRMAN:

Q What is that?

A The insert bearings, if they failed to get proper lubrication or they became flawed in some way while turning on the connecting rod they would generate heat enough to get red hot, enough to ignite, with sufficient flame, to ignite the gases. It could be a broken piston, piston rings that get down in some way and create a spark, some material initially on the engine breaking up and creating enough heat to ignite the fumes

of the lubricating oil.

BY MR. LEWIS:

Q Would an overheated engine cause a crankcase explosion?

A An overheated engine would assist in the crankcase explosion but you would have to get fast overheating. Otherwise your lube oil would come to a temperature that it would shut your engine down to low lube oil.

Q And if it did not do that fast enough that might assist, if the low lube pressure did not go down fast enough to shut the engine down it might assist in a crankcase explosion?

A Well, your lube oil will go down pretty fast as soon as the temperature rises in your lube oil, the density of the oil. It would be pretty hard to get your pressure.

Q What about failure of the water cooling system? I suppose your answer would be the same with regard to that?

A Failure of -- in just what way do you mean failure?

Q Causing overheating.

A Failure of the water cooling system can cause overheating.

Q Which might result in a crankcase explosion? Is that right?

A I would hardly say it would cause a crankcase explosion. There would have to be something else.

Q Would you disagree with this, Mr.McClean?
I do not propose to file this as an exhibit unless the Commission or my friend wish me to, but in the annual report of the director of the Bureau of Locomotive Inspection in the United States for the year ended June 30, 1947, I read the following statement last night on page 13 of that report:

"Six explosions occurred in crankcases of engines of diesel-electric locomotives,-resulting in injuries to seven employees. Five of these explosions were caused by overheated bearings, and one was caused by an overheated cylinder liner and piston due to inoperative water cooling system shutters."

A Did you say that was 1947?

Q Yes?

A I am sorry I have no diesel experience on those ancient type locomotives.

Q You think they might have been different?

A They are a different locomotive. My experience is from 1949, units built in 1949, 1950 and on up.

Q And you have made no study --

A No,1947 engines, I cannot tell you what type

of engine. I have had no working experience.

Q. No, but you have, Mr.

A. They were quite a lot different. There are quite a lot of improvements since production of those engines which were in use then. I am not experienced in engines of that type.

Q. Have you as a craftsman, Mr. McClean, out of a craftsman's curiosity tried to acquaint yourself with what was the situation and the nature of diesel engines prior to 1949?

A. Our trouble, sir is to keep up with the present, not with the past.

Q. Pardon?

A. Our trouble is to keep up with the present, not with the past. We have new equipment coming out regularly and keeping in line with the new improvements in equipment is quite a job.

Q. You have no knowledge at all

A. No, I do not on that construction. I would not have authority to speak on an engine of that type.

Q. Let me finish my question, please

A. From 1949 on I have experience on those engines. I can speak for that type of diesel.

Q. And you are saying that you have no knowledge whatever about engines prior to 1949?

- A. Yes, locomotives prior to 1949.
- Q. Well, I read this also last night in the report of the same officer in the United States under the Interstate Commerce Commission for 1954 at page 12 on which this paragraph occurs:

"Three crankcase explosions and 2 fires about Diesel Engines resulted in injuries to 6 persons. Electrical fires in engine compartments, about units, short circuits and explosions caused by flash-overs in electrical cabinets caused injuries to 9 persons. Because of danger of fires resulting from the liquid fuel and the high pressures and temperatures used in Diesel Engines and the possibility of accident from electrical short circuits, a high standard of inspection and maintenance is required at all times if accidents are to be avoided."

You would disagree with the statement of the Director of Bureau of Locomotive Inspection in the United States, with his statement that there is danger of fires resulting from the liquid fuel

and high pressures and temperatures used in diesel engines -- you would disagree with that, would you?

A. That is a very remote possibility. I guess it could, I just don't know how.

Q. You don't know how?

A. I don't see how a fire would develop. Apart from flash-overs as the origin of it somebody must have been opening electrical cabinets, coming in contact with a flash-over. I have seen a lot of flash-overs in electrical cabinets but they are enclosed. The flash-over will come to the door and it will energize your ground relay if these doors are left closed and not injure anyone. There is no hazard to personnel or anyone around. Your ground relay is your protection there both for the engine and your personnel.

Q. In Exhibit 146, page 17, Mr. McClean, you told the story of the fireman Naudette walking out to inspect the engine when the train was going, if I remember, 47 to 50 miles an hour, is that right?

A. That is correct.

Q. It so happens, Mr. McClean, that Mr. Naudette happened to be sitting here when you were giving your evidence.

A. Yes.

Q. You noticed him?

A. I did.

Q. And, I might inform you, Mr. McClean, he read your statement and said it was accurate as to what happened.

MR. SINCLAIR: That is not a surprise, is it Mr. Lewis?

MR. LEWIS: I did not say it was a surprise, Mr. Sinclair. I was just informing the witness where there is no conflict.

BY MR. LEWIS:

Q. Did you not say something to the engineer before the fireman went out?

A. The fireman at the time he was putting on his hat and coat and rubber boots, we were coming close to an inspection point where there was going to be train inspection and just as he was leaving the door, this happened quite casually, I said to the engineer: "I wonder what he is going out on the running-board for, what is he going out to tamper with?"

BY THE CHAIRMAN:

Q. Would you speak up? I heard that with difficulty.

A. Yes sir.

BY MR. LEWIS:

Q. Mr. McClean, Mr. Naudette informed me

that he thought he heard you say to the engineer that the needle or whatever you call it was right near the line where the danger zone begins and that you made some remark about it to the engineer?

A. I had made a remark, I recall that. The engine temperatures were operating at 140 degrees. As a rule you will see on this type of locomotive, Alco locomotives, you will see the engine temperatures around 150 degrees. There is a space on your engine temperature control gauge, a little white sort of target which is considered the safe operating zone whether an engine is too cool or too warm but it will operate quite a bit out on either side of this target but we were within the white, which is known as the safe operating zone. I often make casual remarks to an engineer as to the position of the gauges and indications.

Q. All I wanted to ascertain was whether my instructions were right that you did make some remark.

A. Yes, that is quite correct.

Q. And it may be that having heard that remark Mr. Naudette felt he ought to go out and see what was the trouble?

A. He examined the gauge. He was over

there on the engineer's side examining all gauges.

Q. Now, did you see Mr. Naudette in any difficulty while he was out?

A. No, he was in no difficulty except trying to find whatever he was looking for. He opened a lot of doors. I think he was kind of lost out there for a while. He was opening several doors before he came to the one he was eventually heading for.

Q. Did you see him in any personal difficulty, in any difficulty from the speed point of view at this rather high speed out on the catwalk?

A. No, I had my fingers crossed that he would not get blown off the catwalk.

Q. To make it clear I am not intending to recommend to my client that they tell their members to go out on the catwalk at this speed. I am interested in view of the speed whether he appeared to be in any difficulty from the point of view of speed?

A. No, he appeared to be all right.

Q. He is a strapping young fellow?

A. Yes.

Q. You also suggest in your details of the story that the engineman called him back but he ignored the engineman?

A. That is correct.

Q. Are you sure of that, Mr. McClean?

He couldn't get in, could he, by continuing on the right-hand side, couldn't get back in the cab that way, could he?

A. No, he would have to go around the nose of the unit.

Q. He would have to go back the way he came?

A. That is right.

Q. Are you sure that is not what he did when the engineer signalled to him?

A. The engineer gave him a toot on his whistle and beckoned him to come on in and he could have misunderstood the beckoning but he then opened the door and examined the control panel, that is, your temperature switch control on the right side of the unit towards the nose.

Q. Would this be correct, that he had got to this door when the engineer whistled and so he opened the door and looked in and then closed it and went back?

A. He finished what he started to do and returned.

Q. And returned?

A. Yes, that is right.

Q. Now, I am interested to find out in some of the trips in Exhibit 146, Mr. McClean, I won't go through all where it occurred but take, for example, 28 -- I am interested to find out who booked

the matters which were booked on MP-74:

"The following work booked by
engineman"

Did he write those out himself?

A. No, it was written out by the fireman.
I advised the engineman what was wrong
back in the unit so as to give him the
proper phrasing of what to write
down. The fireman booked that.

Q. Pardon?

A. I drew the attention of the engineman
to these difficulties and defects. The
fireman wrote it down.

Q. And had the fireman written it down
before you drew attention?

A. No, it was not written down.

Q. You informed the engineman of that?

A. Yes. The writing and the wording there
is of my phrasing.

Q. And had you made an inspection of the
two units?

A. I had made an inspection of the unit.
I took a walk through the unit.

Q. You took a walk through the unit?

A. Well, in the cab, the radiator core
on the right side, the engineer's side.
He was complaining there was not much
heat. I went to the nose to see if it
was air-bound. It was not air-bound
and it was definitely blockage in the

radiator core. The water jumper line, they had noticed a leak at right 6 cylinder. They didn't know what it was.

Q. You say "they" noticed it. Who?

A. Both the engineman and fireman were back in there and after I had a look I knew what the trouble was. It was a jumper line gasket leaking and it was a slight spray of water.

Q. You say neither the engineer nor the fireman knew what was wrong?

A. They didn't know what was actually taking place. They knew there was a water leak there but they didn't know how to correctly book it. They could have booked it as a water leak. If I had not been there I imagine it would be booked as a water leak.

Q. They would have just said "water leak at right 6" there?

A. Yes.

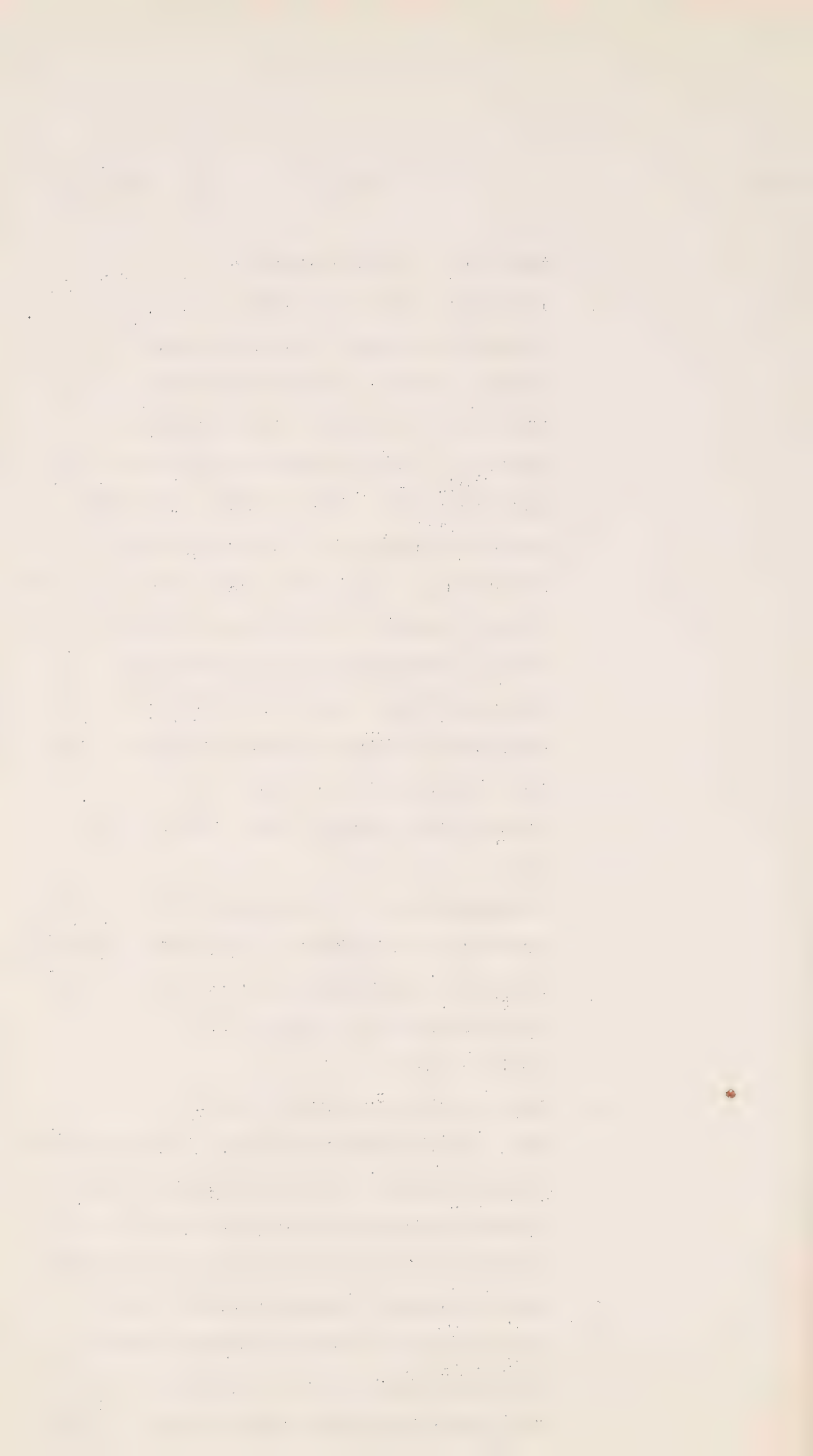
Q. And this "Power off light not working"?

A. I noticed that during a brake application where they should have got the power off light and it had not come on. I drew their attention to those defects, the engineer and fireman.

Q. And at page 35 there is another example, Mr. McClean, There is work booked on MP-74 in respect of both units. Who wrote

that out, do you remember?

- A. The fireman wrote it down. I believe "Change the toggle switch for panel light" I think I wrote that myself. I think the MP-74 will be in my handwriting. "Exhaust leak on right top 6 by exhaust leg", that is work I had drawn their attention to. It had not been noticed by anyone and I drew their attention to it. I might have made these remarks myself. I would have to see the MP-74. I believe in this case I had written it down on the MP-74 myself where I wanted to draw the attention of the shop to it.
- Q. Is that also true of 4405, the trailing unit?
- A. I remember now, I had booked both of these engines and the MP-74, I am pretty certain, is in my handwriting and I believe it has my initials on the end of it.
- Q. In this case?
- A. Yes, in that particular case.
- Q. Now, 39 is another example. You have there "This work was booked by fireman before leaving Smiths Falls except item 3 on unit 8468" about making the bell work properly?
- A. That is right, Making the bell work properly was booked not before leaving, that was after we had left Smiths Falls. The other items were booked before leaving



Smiths Falls.

Q. And the fireman wrote it down?

A. The fireman wrote it down on his own observation. The auxiliary generator gauge was missing, it was off the unit altogether. The engineer's seat, the leather was ripped, torn and they had booked these things the minute they got on the engine, right on the shop track. They are items that anybody could notice.

Q. Pardon?

A. They are items anybody could notice. They are not of any great seriousness.

Q. They are not?

A. Like "repair the engineman's seat, auxiliary generator gauge missing". If there is anything else on the road they would book it as anybody would, they would book it on their MP-74.

Q. And in order to be able to book it I suppose one or the other, either the engineer or fireman would have to inspect the unit?

A. That is right, yes.

Q. On page 41 of MP-74 something was booked there.

A. That was booked by the fireman. He drew my attention to it as I was walking around the engine with him. He asked me

what it was and I told him it was a binder loose. He had booked it as "bar" but the word was changed to "binder".

Q. These engine crews, when you came on an engine, Mr. McClean, they would know you, would they?

A. I imagine they should. Yes, they know me.

Q. You are making these trips?

A. I am around the locomotives at all times both at St. Luc and Smiths Falls and other terminal points.

Q. I suppose when you were in the cab of the engine you were making notes on what you saw?

A. That is right.

Q. In order to fill out these forms later?

A. That is right, yes.

Q. And I suppose the engine crew would notice you taking notes?

A. They would.

Q. And I suppose that the fireman would then be induced to be a little more active since you were present and making notes than he probably would have been otherwise?

A. He probably would, yes.

Q. And I suppose that might easily account for the fact that these fellows seemed to make a little more engine-room inspection than they were in the habit of doing?

... ..
... ..
... ..

... ..
... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

... ..

- A. That is right. There is actually no reason for them to go back into the engine-room that I can see.
- Q. I appreciate your opinion on that, Mr. McClean. Have you had any operating or switching experience at all?
- A. No, I am not in the operating department; I am in the mechanical department.
- Q. You have had no switching experience at all?
- A. No.
- Q. You are not really qualified to inform this Commission as to how the switching movements should be done or improved upon?
- A. No, I have simply stated my observations.
- Q. As a layman in that field?
- A. That is right.

MR. LEWIS: Thank you, Mr. Chairman.

BY MR. SINCLAIR:

- Q. Just in regard to this Director of Locomotive Inspection's report, 1954, immediately in the paragraph on page 12 ahead of where Mr. Lewis read I find this:

"One person was killed when his clothing became entangled around a moving and unguided fan-shaft as he attempted to obtain a water sample from an inconveniently located water glass drain cock."

Are you listening to this, Mr. McClean?

A. Yes.

Q. "Three other persons suffered amputation of a total of 9 fingers and 2 of these also had arms broken when caught in auxiliary generator drive-belts that were not properly protected. Because of limited space within bodies and under hoods of Diesel-Electric Locomotive Units, complete protection of moving and rotating parts is essential if accidents are to be avoided."

Mr. McClean, in the light of that -- maybe I read that rather quickly, you might like to read it -- could those kind of things happen on diesels of Canadian Pacific, of fingers being amputated or clothing being caught?

--

--

--

--

A No. As I say, those are engines that I just know the construction of. They are before my time on diesel locomotives. The locomotives we have or the type of equipment we have, that type of hazard does not exist.

---Recess.

MR. SINCLAIR: I have nothing more from Mr. McClean unless the Commission have some questions.

THE CHAIRMAN: You were going to deal with Exhibit 147, which had been withdrawn. Are you going to deal with it now or at some other time?

BY MR. SINCLAIR:

Q Mr. McClean, do you deal with mechanical examinations for firemen?

A No, I have nothing to do with mechanical examinations for firemen.

Q Nothing whatever?

A Nothing whatsoever.

BY MR. LEWIS:

Q There is one question which really is not controversial and I have been meaning to ask it of every witness. These mileages which are given in your trip reports, such as from Smiths Falls to St. Luc, 122 miles; is that

the mileage from the outer switch to the outer switch or from shop track to shop track?

A I believe it is from outer switch to outer switch.

MR. LEWIS: Perhaps my friend could ascertain that.

MR. SINCLAIR: I will check it with the time bill.

MR. LEWIS: It was in relation to some other things that I wanted to check.

MR. SINCLAIR: I will check it with the time bill.

--

--

--

LEO LEONARD O'BRIEN, recalled.

EXAMINED BY MR. LEWIS:

- Q Mr. O'Brien, if I remember correctly you told the Commission that you were against employees going out on the catwalk of a road switcher when it is in motion; is that right?
- A Yes, that is correct.
- Q Do you know Keith Post, the local chairman of the Brotherhood of Firemen and Enginemen in Ottawa?
- A Yes, I do.
- Q Do you recall a conversation with him about this matter about a year ago?
- A He may have asked me some questions about it; I am not just too clear on it.
- Q Perhaps I could help you to recall the incident. I am instructed that conversation arose out of the fact that Mr. Post had been out on a trip in which there were two units involved and both units became overheated at the same time and he was discussing with you, or he instructs me, about going out on the catwalk of both units in view of the hot engines?
- A I recall that conversation. It would be on Train No. 10 en route to Montreal.
- Q A passenger train?
- A A passenger train.

Q Do you remember telling him that he was free to go out and make resets but that before doing so he ought to get the engineer to slow down the train to between 30 and 35 miles per hour?

A No, I do not recall stating any specific speed. I did state that he should not do this and before doing it the train should be slowed right down.

Q You told him he should not do it at all?

A That is correct, but if he did it the train should be slowed right down.

Q But you are quite sure that your first statement to him was that he should not do it at all?

A That is what I said. Well, rather, maybe I should say, you are not expected to do this. I don't just recall; that was quite some time ago; either you should not or you are not expected to.

BY THE CHAIRMAN:

Q To do what?

A Go out on the running-boards of the engine to make adjustments while the train is in motion.

Q What adjustments were the subject of conversation?

A There evidently had been two or three trips previous to that when he claimed he had had a hot engine and that he

had gone back and made some adjustments to the shutters.

Q To what?

A To the shutters; to the temperature control.

BY MR. LEWIS:

Q Do you remember addressing a class in June of last year for first and second year examinations?

A I had first and second year examinations last year; that is correct.

Q Do you remember instructing that the thing they should do was to see that the speed was reduced when going out on the catwalk of a moving engine?

A Very likely I did say that.

Q Finally, do you remember having correspondence with Mr. D.A. Dauthrey of Smiths Falls, the local chairman at Smiths Falls, about two years ago?

A Yes, I remember that. I think the general story was that in view of the fact that locomotives were not provided with catwalks between them, that they were not expected to make patrols and in some emergencies that they should go out with due regard to the fact that there were guard rails on the locomotives and at reduced speed.

Q Mr. O'Brien, to be fair to you may I

say that the letter was read to me over the phone this morning and it is in the mail. I shall file it as soon as it reaches me. Do you remember saying in one part of the letter that there were no catwalks or platforms between the units and therefore they should not endanger themselves by going from one unit to another?

A That is correct.

Q Then in the second part of the letter did you not say in that letter to Mr. Dauthrey that as far as going out on the catwalk of a moving unit was concerned, the fireman should use his discretion, but you drew his attention to the fact that there was a ruling for the safety of employees?

A Yes, sir, that is just what I got through repeating.

Q As far as you were concerned, as late as June of last year, you had no objection to employees going out on the catwalk if the speed of the train was not too fast?

A That letter was written to myself by the chairman asking for a ruling as to whether employees could go on the catwalk, and therefore I answered along those lines, that it was permissible at

reduced speed and with due regard to the fact that there were no gangways between the unit and also that there was a guard rail.

--

--

--

Q I repeat the question I have asked you.
Is it not true that as late as June of
last year you yourself --

A Well, I do not recall whether that was
written in June of last year or when it
was.

Q I am sorry if I misled you. Your letter
was dated February 3, 1955. I said two
years ago when I asked you about the letter,
but with regard to the class which you had
in June of last year I am asking you
whether it is not true up to and includ-
ing at least June of 1956 you yourself had
no objection to employees going out on
the catwalk to inspect or adjust so long
as they saw to it that the train speed
was reduced. Is that not true?

A Yes, I guess substantially -- yes, I
would say that is true.

Q This wheel slip light that you told the
Commission goes on when a unit makes
transition, I have been instructed by
enginemen that some of the units are
wired so that the wheel slip light and
buzzer operate when transition is made
from throttle No. 3 to 2 or conversely
from 2 to 3?

A Would you repeat that again? I am afraid
I just did not follow you.

Q Some units are so wired that when

transition is made from 3 to 2 or conversely from 2 to 3 the wheel slip light goes on regularly?

A Yes, that is correct.

Q And enginemen and firemen have been so informed?

A Well, I don't know that they have been informed. In fact, I would say definitely that there has been no steps taken to inform them. In other words, that wheel slip warning light, it is just natural to expect it when you are making transition. You can hear the contactors picking up and the wheel slip light and the buzzer all happen at the same time, and you just do not pay any attention to them.

Q And the engineers and firemen, most of them do not pay any attention to it either?

A That is correct.

Q And the wheel slip that we have been talking about earlier is a constant wheel slip that has nothing to do with transition?

A Which wheel slip is this we talked about earlier?

Q When I was questioning some witness -- I don't know whether you were here or not -- as to the wheel slip signal, if

you like, if you do not want to call it an alarm, I was talking about the wheel slip that was not related to transition but was related to some defect occurring?

A Yes, I have been on an engine myself when there was wheel slip that was not related to the transition and when I took the precaution of blocking out or the action of blocking out the WS2 relay.

Q And you said yesterday no engineer could do that?

A He could do it but I would not want him to.

Q Why not if he knows how to do it?

A Because I do not consider he should do it without taking all the precautions that I would do myself, watching to see that the wheels were turning and also to make sure that the traction motor was not showing any signs of any heat.

Q And if the engineer knew all these things -- some of your engineers would, would they not? Some of your engineers are pretty experienced fellows?

A Well we have to set up a policy for the whole system and in my case for the division and I just would not want them doing that for fear of any serious consequences that might happen.

Q Have you issued a bulletin that they

must not do it?

A Yes, we have a bulletin issued. In fact, it was filed as an exhibit yesterday.

Q Dealing with this particular thing?

A "Engine crews must not tamper with or make adjustments to protective devices nor enter electrical cabinets and interfere with or make any adjustments to the power contacts or interlocks without instructions or supervision from Division or District Officers.

THE CHAIRMAN: Exhibit 141.

BY MR. LEWIS:

Q That was issued on February 5 of this year?

A It was a follow-up -- February 5, 1957, and it was a repeat of a bulletin worded along the same lines of October 2, 1956.

THE CHAIRMAN: Exhibit 140.

BY MR. LEWIS:

Q You say along the same lines, Mr. O'Brien. Are you serious about that? Read the one that is Exhibit 140. All you say there is that "operating crews must not tamper with or make adjustments to protective devices." Is that as broad as making any adjustments to power contacts or interlocks and entering the electrical cabinets?

A Well, your wheel slip relay is a

protective device.

Q Oh, it is?

A Oh yes, it takes place there when you get wheel slip indication. The power is knocked off that unit.

Q I have been under the impression that we were told there were four protective devices, which did not include the wheel slip.

MR. SINCLAIR: Basic.

BY MR. LEWIS.

Q My friend says basic protective devices. We had the overspeed, the hot engine, the ground relay and the low lube. I thought those were the four protective devices?

A Those are the four that would be visible to the engineman.

Q And is the wheel slip light not visible to the engineman.

A It is a warning he has that the wheel is slipping and it is something that he cannot play around with or work on at all.

Q Therefore in the sense in which it has been used I would have thought it was not a protective device in the same sense as the others but you think it is ?

A Let us have that question again.

Q It is one of the protective devices, you say? It would be the fifth one to be added to the four I have enumerated, the wheel slip light?

A The wheel slip light does not necessarily always mean that you have a defect in this WS relay. It means that your wheel, that slipping is taking place, but in the instance where you continually stay unloaded that means that the WSR2 and WSR1 -- there are two of them -- has failed to function as it should or rather has functioned and has unloaded the engine.

Q When did you first become district mechanic? Was it in 1953?

A 1952.

Q And you were D.M.M. at Farnham and then from 1953 on at Smiths Falls?

A Yes.

Q Did you have diesel engines when you were District Master Mechanic at Farnham?

A Division Master Mechanic -- yes, that was one of the first divisions to be dieselized.

Q You had diesel engines at Smiths Falls in 1953?

A That is correct.

Q You were locomotive foreman at St.Luc

in 1950 and 1951. Did you have any diesel engines there?

A Yes, we were maintaining diesel locomotives.

Q And throughout those years engine crews were tampering, as you call it, with some of these devices and so on, were they?

A Well, it is pretty difficult to go back all those years and give you instances of damage that has been done from tampering but it had been my conviction from the first time we got the diesel engines that we should not allow anybody into the electrical cabinets other than qualified personnel.

Q And in spite of the fact that you had that conviction from the first moment your first bulletin was not issued until October 2, 1956?

A Oh, I think that the reason for that was that the diesel had become more widespread and where we had twelve units we could keep our finger on all the time we now have something like six hundred units and it is a system-wide procedure.

Q You say that these bulletins you have filed have been issued system-wide?

A I am not sure of that. I could not tell you.

Q You told us yesterday that you worded these bulletins and then went to your Mr. Harris to get his approval?

A That is correct.

Q So as far as you are concerned they did not come to you from any centre? You worded them yourself?

A I worded the bulletins myself. It came due to the fact that we had received letters of trouble that had been encountered due to the fact that there had been tampering and to take the necessary steps to correct it on the Smiths Falls division this was my thought as to how the necessary steps should be taken.

Q You got these letters from whom?

A They would come from my immediate mechanical superior, Mr. Scott, the district master mechanic in Montreal.

Q You remember receiving some correspondence from him on this?

A There would be something along those lines. I don't recall just exactly how it would be.

Q Pardon?

A There would be something along those lines, that there had been tampering in the electrical cabinets resulting in damage and for that reason to take the necessary action to correct it on

the division.

Q That was the occasion for these bulletins?
It was not your own initiative?

A Well, this second one of February 7, that
was as a result of --

Q February 5?

A February 5 of this year, I think that
was the result of this mishap or delay we
had on train 598.

Q So you issued it on your own?

A I issued that on my own.

Q With the approval of the superintendent?

A That is correct, yes.

Q And I repeat again that in spite of your
conviction from the first day, your first
bulletin dealing with this did not
appear until October 2, 1956? Is that
right?

A As locomotive foreman and general fore-
man I would not be the party to put out
bulletins, and in 1953 and 1954 diesels
were only just coming in on the Smiths
Falls division to any great extent and
I don't recall having the occasion to
put bulletins out.

Q You had had experience with diesels in
1950 and 1951 at St. Luc, in 1952 at
Farnham and then in 1953 at Smiths Falls,
and you say that from the first moment
you knew that people should not do the

things which you prohibit by these bulletins?

A That is right. That is my feeling, that I don't want anybody in those cabinets except qualified personnel.

Q All I have asked you, Mr. O'Brien, and I still have not got a clear answer, is this. Is it right that October 2, 1956, was the first time you issued a bulletin relating to this matter? Is that so?

A Definitely I cannot tell you yes or no. I have put out quite a few bulletins and I don't know.

Q You don't know whether it was the first one or not?

A I couldn't tell you.

Q What is the nature of the bell, as we have called it, on your various diesel units? What kind of bell is it that sounds when there is an alarm?

A Well, we just call it an alarm bell.

Q What kind is it?

A It is an electric bell.

Q Has it a pretty loud gong?

A Quite loud, yes.

Q Right over the engineer?

A Some of them, it seems to me, are in the engine room -- no, they are in the cab. They are right in the cab, I think.

Q Right above the engineer?

A That is correct.

Q And they make quite a noise, I am instructed?

A There is no doubt about that.

Q And it is pretty distracting to the engineer to go on with that gong ringing all the time? Is that not so?

A Well, no, I would not say it is distracting. It gives you a start at the moment and then you realize, well, there is something gone wrong.

Q And there is no value, you think, in re-setting the devices so as to get rid of noise above the engineer?

A No, I don't really think so.

Q You would not mind running an engine for quite some distance with that gong going overhead?

A It might be bothersome but it could be tolerated.

BY THE CHAIRMAN:

Q Does the bell keep on ringing when the engine is shut off or made to idle?

A It keeps on ringing until you acknowledge the alarm on the unit that is affected.

Q How do you do that?

A Well, the quickest way to get rid of it is to take the engine off the line,

switch the engine back to start.

BY MR. LEWIS:

Q And in order to do that you would have to go back to the unit affected? You could not do that from the control cab?

A That is correct.

Q So whether you were re-setting the device or taking the unit off the line you would have to get into the unit affected?

A That is correct.

Q You mentioned, I think, if I remember correctly, that you investigated a case where there was a fire as the result of an oily rag having been left at some vulnerable spot. I cannot remember exactly where. Do you remember that?

A Well, there was an instance on No. 9 coming out of Montreal where the crew wanted to shut the engine down at once and I had told them not to or rather at Vankleek Hill -- at Vaudreuil they dropped off and they were working only on one engine, and the next open telegraph station, if I remember correctly, was Hudson, so I told the dispatcher to give them a message at Hudson to put the engine back on the line. This, of course, is referring to a passenger train and they did that and whatever was there -- I had arranged

for the locomotive foreman to meet the train at Ottawa and whatever it was had burned away at that time.

Q Do you know who might have left that oily rag there? I don't suppose you would know?

A The only assumption I can make is that machinists working around there -- some careless party had left it lying there.

Q Some mechanic had left it lying around, and one of the things that you required the fireman to do when you asked him to make an inspection a year or two or three years ago was to make sure that rags and other refuse of that sort were not left on the engine. Is that not right?

A That was correct, yes.

Q It was his duty to clear that kind of hazard out of the way? Right?

A That is correct, yes.

Q Then, if my notes are correct, Mr. O'Brien, you stated that in the case of a fireman changing from steam to diesel you did not require him to take any trips at all. Did I hear you right on that?

A We required him to take trips to learn the steam generator on passenger diesels.

Q And nothing more than that?

A Nothing more than that.

Q Well, I am instructed by the same Keith Post that in 1954 you required him to take a thousand miles at his own cost, that is, without pay, on diesels before he would be qualified to go on a diesel engine?

A No, that is not so. I did not require any fireman to take any trial trips at a thousand miles or any other number of miles.

Q When I said you required him I misled you perhaps. It was not you personally but that he was required by his local officers who would presumably come under your jurisdiction?

A I have no knowledge of that and I did not put out any instructions to that effect and this is the first I knew there was any such thing that might have taken place.

Q The first you have heard of it?

A That is correct.

Q. And you don't know of it happening in any part of your division?

A. No sir, I don't.

Q. In fact, Mr. Post instructs me that he was not the only one, that there were a number of firemen that had to do the same thing?

A. To go on there for a minute or so all of the diesels with the exception of possibly one, maybe two, working out of Ottawa were all in passenger service and that might be the reason that he rode diesels to become qualified on the steam generators but certainly no one at Ottawa would have any knowledge or would be asked to make any trial trips for freight diesels because we just don't have them down here with the exception of the occasional engine that is going out of here.

Q. Is the steam generator different on the Alco than the General Motors?

A. No, they are all the same. There are some different locations and valves and so on but substantially they are the same.

Q. Would there be any reason on account of that to require the firemen to take trips on Alco and General Motors engines both if you were merely trying to teach

them the steam generator?

A. I would not know of any reason, no.

Q. But you say that in Smiths Falls you put firemen on a diesel freight engine without any previous instruction whatever?

A. That is correct, yes.

Q. And you have been doing that for how long?

A. Well, I have been on the division for four years and I didn't do it at any time during those four years.

Q. And during those four years no fireman who went from steam to diesel on freight was given any instruction on the diesel engine at all -- that is your evidence is it, Mr. O'Brien?

A. Possibly he might have gone around to the shop and asked the locomotive foreman for instruction and also I did have a program there in order to qualify the men at Smiths Falls on steam generators, every Sunday we had a locomotive laying there with a steam generator on it and I asked the District Diesel Inspector to go over and take classes of four and five men each time and he would instruct them on the steam generator and it is possible when he was instructing them they would inquire about protective devices and other things and at that time he would instruct them on it.

Q. When you were giving these classes in June of last year, first and second examinations, would they not write up the mechanical examination as well?

A. They wrote up the first and second year examinations which are listed on the fly-leaf of the book.

Q. Would that include this mechanical examination for diesel helpers? Would he write up that?

A. Yes, he did write that.

THE CHAIRMAN: Exhibit 147.

MR. LEWIS: Exhibit 147, yes, form 505.

BY MR. LEWIS:

Q. Now, looking at that, Mr. O'Brien, please tell me how a helper could write up that examination without having been told something about the diesel engine, how could he do that?

A. Well, from his trips in freight service with the locomotive engineer, that is where he would pick that up. The whole purpose of this examination book is to qualify a man to become an engineman and he would pick up that knowledge in the usual manner that they would as in the past on steam.

Q. You mean he would learn about the protective devices and all the various

parts of the diesel that that examination refers to by going on freight and learning from the engineer?

A. That is correct.

Q. And you would take no steps to teach him anything before he went out on the engine?

A. No, there was no action taken to teach him anything on it.

Q. I was curious, Mr. O'Brien, to know how you knew the information contained in a statement you made yesterday in answer to a question by Mr. Justice McLaurin. You were telling the Commission about the trouble which developed on train 598?

A. That is right.

Q. The engine was not making transition?

A. That is right.

Q. It was going at a slow rate of speed and would not make the time card speed for the train and then you went on and said:

"..... and in their efforts to correct the situation they kept fooling around until they got a couple of wires crossed"

Were they inside the electrical cabinet?

A. That is right, yes.

Q. And they got these wires crossed?

A. Yes, the way that took place, they were poking it with a flagstaff. I got the information from taking a statement from the engineman in connection with the delay to the train.

Q. You got the information about this flagstaff poking?

A. That is correct, yes.

Q. And then, after giving the details of that Mr. Justice McLaurin asked you if it had not been fooled around with how long would it have taken to fix it and your answer was:

"Well, if they had left it alone it would have been only a matter, I would say, an average man would have found it inside an hour and corrected it but due to poking around in the electrical cabinet and the damage that was done ..."

And then His Lordship interrupted you and said:

"Q. It made a major portion of the next day's work by interfering with it?"

And your answer was:

"A. That is correct."

How do you know it would have taken an hour to correct it?

A. I know what was wrong with it and it was

just a matter of changing a little spindle about so long (indicating) and to change that you have have to take out three or four capscrews and put a new one in. Now, the way they test that is with a device they have for testing the speed that one of these Alco engines will make transition at and immediately they take that cap off and apply their device they would find this spline broken.

Q. Was it your statement that a day was taken up in finding the defect or in correcting it?

A. In correcting it in the cabinet. This whole failure had become, you might say, clouded up due to the fact that the shop staff did not immediately realize what had happened, that the engine had shut down and that necessitated a lot of electrical tests and chasing of circuits and my information from the General locomotive foreman at that point was that they spent all day finding it.

Q. And doesn't that happen frequently in finding a defect due to a complicated electrical system?

A. That is correct.

Q. You often have to spend quite some time

before you locate the damage?

A. Yes, but had they left it alone the first move would have been to test the transition and they would have found a broken spline which would not have taken an hour to fix.

Q. You think it would have been done that fast?

A. Yes.

THE CHAIRMAN: May I see that Exhibit 147, Mr. Lewis?

MR. LEWIS: Yes sir. I will find the place I was referring to.

BY MR. LEWIS:

Q. Now, as Exhibit 142, Mr. O'Brien, you filed a statement of locomotive firemen hired on the Smiths Falls division and where they came from?

A. Yes.

Q. I have a very simple question about it, Mr. O'Brien; you don't really need the details. I am wondering whether you compiled this information from records in your Smiths Falls office or from the records in Montreal or wherever the central employment records were kept?

A. They were taken off the staff records in the Smiths Falls office.

Q. The staff records in Smiths Falls?

A. Yes, which apply only to the Smiths Falls division.

[illegible]

4

1. 2. 3. 4. 5. 6. 7. 8. 9. 10. 11. 12. 13. 14. 15. 16. 17. 18. 19. 20. 21. 22. 23. 24. 25. 26. 27. 28. 29. 30. 31. 32. 33. 34. 35. 36. 37. 38. 39. 40. 41. 42. 43. 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56. 57. 58. 59. 60. 61. 62. 63. 64. 65. 66. 67. 68. 69. 70. 71. 72. 73. 74. 75. 76. 77. 78. 79. 80. 81. 82. 83. 84. 85. 86. 87. 88. 89. 90. 91. 92. 93. 94. 95. 96. 97. 98. 99. 100. 101. 102. 103. 104. 105. 106. 107. 108. 109. 110. 111. 112. 113. 114. 115. 116. 117. 118. 119. 120. 121. 122. 123. 124. 125. 126. 127. 128. 129. 130. 131. 132. 133. 134. 135. 136. 137. 138. 139. 140. 141. 142. 143. 144. 145. 146. 147. 148. 149. 150. 151. 152. 153. 154. 155. 156. 157. 158. 159. 160. 161. 162. 163. 164. 165. 166. 167. 168. 169. 170. 171. 172. 173. 174. 175. 176. 177. 178. 179. 180. 181. 182. 183. 184. 185. 186. 187. 188. 189. 190. 191. 192. 193. 194. 195. 196. 197. 198. 199. 200. 201. 202. 203. 204. 205. 206. 207. 208. 209. 210. 211. 212. 213. 214. 215. 216. 217. 218. 219. 220. 221. 222. 223. 224. 225. 226. 227. 228. 229. 230. 231. 232. 233. 234. 235. 236. 237. 238. 239. 240. 241. 242. 243. 244. 245. 246. 247. 248. 249. 250. 251. 252. 253. 254. 255. 256. 257. 258. 259. 260. 261. 262. 263. 264. 265. 266. 267. 268. 269. 270. 271. 272. 273. 274. 275. 276. 277. 278. 279. 280. 281. 282. 283. 284. 285. 286. 287. 288. 289. 290. 291. 292. 293. 294. 295. 296. 297. 298. 299. 300. 301. 302. 303. 304. 305. 306. 307. 308. 309. 310. 311. 312. 313. 314. 315. 316. 317. 318. 319. 320. 321. 322. 323. 324. 325. 326. 327. 328. 329. 330. 331. 332. 333. 334. 335. 336. 337. 338. 339. 340. 341. 342. 343. 344. 345. 346. 347. 348. 349. 350. 351. 352. 353. 354. 355. 356. 357. 358. 359. 360. 361. 362. 363. 364. 365. 366. 367. 368. 369. 370. 371. 372. 373. 374. 375. 376. 377. 378. 379. 380. 381. 382. 383. 384. 385. 386. 387. 388. 389. 390. 391. 392. 393. 394. 395. 396. 397. 398. 399. 400. 401. 402. 403. 404. 405. 406. 407. 408. 409. 410. 411. 412. 413. 414. 415. 416. 417. 418. 419. 420. 421. 422. 423. 424. 425. 426. 427. 428. 429. 430. 431. 432. 433. 434. 435. 436. 437. 438. 439. 440. 441. 442. 443. 444. 445. 446. 447. 448. 449. 450. 451. 452. 453. 454. 455. 456. 457. 458. 459. 460. 461. 462. 463. 464. 465. 466. 467. 468. 469. 470. 471. 472. 473. 474. 475. 476. 477. 478. 479. 480. 481. 482. 483. 484. 485. 486. 487. 488. 489. 490. 491. 492. 493. 494. 495. 496. 497. 498. 499. 500. 501. 502. 503. 504. 505. 506. 507. 508. 509. 510. 511. 512. 513. 514. 515. 516. 517. 518. 519. 520. 521. 522. 523. 524. 525. 526. 527. 528. 529. 530. 531. 532. 533. 534. 535. 536. 537. 538. 539. 540. 541. 542. 543. 544. 545. 546. 547. 548. 549. 550. 551. 552. 553. 554. 555. 556. 557. 558. 559. 560. 561. 562. 563. 564. 565. 566. 567. 568. 569. 570. 571. 572. 573. 574. 575. 576. 577. 578. 579. 580. 581. 582. 583. 584. 585. 586. 587. 588. 589. 590. 591. 592. 593. 594. 595. 596. 597. 598. 599. 600. 601. 602. 603. 604. 605. 606. 607. 608. 609. 610. 611. 612. 613. 614. 615. 616. 617. 618. 619. 620. 621. 622. 623. 624. 625. 626. 627. 628. 629. 630. 631. 632. 633. 634. 635. 636. 637. 638. 639. 640. 641. 642. 643. 644. 645. 646. 647. 648. 649. 650. 651. 652. 653. 654. 655. 656. 657. 658. 659. 660. 661. 662. 663. 664. 665. 666. 667. 668. 669. 670. 671. 672. 673. 674. 675. 676. 677. 678. 679. 680. 681. 682. 683. 684. 685. 686. 687. 688. 689. 690. 691. 692. 693. 694. 695. 696. 697. 698. 699. 700. 701. 702. 703. 704. 705. 706. 707. 708. 709. 710. 711. 712. 713. 714. 715. 716. 717. 718. 719. 720. 721. 722. 723. 724. 725. 726. 727. 728. 729. 730. 731. 732. 733. 734. 735. 736. 737. 738. 739. 740. 741. 742. 743. 744. 745. 746. 747. 748. 749. 750. 751. 752. 753. 754. 755. 756. 757. 758. 759. 760. 761. 762. 763. 764. 765. 766. 767. 768. 769. 770. 771. 772. 773. 774. 775. 776. 777. 778. 779. 780. 781. 782. 783. 784. 785. 786. 787. 788. 789. 790. 791. 792. 793. 794. 795. 796. 797. 798. 799. 800. 801. 802. 803. 804. 805. 806. 807. 808. 809. 810. 811. 812. 813. 814. 815. 816. 817. 818. 819. 820. 821. 822. 823. 824. 825. 826. 827. 828. 829. 830. 831. 832. 833. 834. 835. 836. 837. 838. 839. 840. 84

MR. LEWIS: Mr. Chairman, if I may, my learned friend warned me yesterday that the records people are getting a little worn by the requests I make which I can appreciate and am sorry about but I think with respect that it is important to establish whether the information on Exhibit 142 is typical of the system as a whole or whether it is typical only of the Smiths Falls division for whatever weight this particular information may have.

I would therefore suggest that something be done to give a wider sample. I put it that way, sir, because I don't want to make any suggestion which would be unreasonable to the people who would have to make the sample up and I am quite prepared to have a conversation with my friend as to what points might be taken to make it typical.

THE CHAIRMAN: Perhaps you might do that first.

MR. SINCLAIR: I think Mr. Lewis should ask for what he wants and then we will see whether the Commission wishes to ask us to provide it.

THE CHAIRMAN: Very well. What is your requisition?

MR. LEWIS: Well, in that situation, sir, my requisition is that we have in mind a breakdown which is in Exhibit 142 for all firemen hired between April 1, 1953 and March 31,

1957.

MR. SINCLAIR: I would say that that is a typical example of what has been going on by my friend on a number of occasions. When we supply him with certain information he goes out on a fishing expedition. If the Commission wishes me to ask the Company to supply the information I, of course, will do so. I think it is completely unreasonable.

MR. LEWIS: Mr. Chairman, may I say I thought my first suggestion was a reasonable approach. I realize that this kind of system-wide information might be onerous and I therefore offered to discuss it with my learned friend and perhaps to agree upon some division across the system which might give us a typical representative picture.

THE CHAIRMAN: Will you refresh my mind? Exhibit 142, was that in answer to a previous request of yours?

MR. LEWIS: No, sir.

THE CHAIRMAN: It was just produced by the witness?

MR. LEWIS: It was produced by the witness and is a breakdown of the record of the firemen hired by the witness during those years.

THE CHAIRMAN: Well, we will think about your request, Mr. Lewis.

MR. LEWIS: Thank you, sir.

BY MR. LEWIS:

Q. Mr. O'Brien, have you had any operating experience? Your experience has been entirely mechanical, is that right?

A. No, since being promoted to Division Master Mechanic in 1952 I am considered an operating officer. I am required to pass A rules book and understand the train books.

A. And would you have had very much experience or knowledge of switching operations and so on?

A. Well, I have been around the railway for 32 years and I have been going to and from the shops riding trains and I figure I have had a pretty good opportunity to size up the various moves and know what is going on.

Q. But your work has been concerned with a supervising, I think you told us, engine crews and car shop people, and so on, is that right?

A. That was up until the last five years. In the last five years I have supervision over the crews over the road too.

Q. Pardon?

A. In the last five years I have supervision over the crews on the road too.

Q. That would be the engine crew?

A. Yes, and if there is any violation on the part of the train crew I soon tell them about it too.

Q. You have supervision over the train crews as well?

A. Not direct supervision but I am department officer and have the authority to speak to them and tell them that they have done something wrong and institute the necessary steps for an investigation or to find out what we can do to correct it or fix the responsibility.

Q. But you are not an expert on switching operations or that sort of thing in railway operations, are you?

A. I would hardly say I was an expert, no.

HON. MR. McLAURIN: He probably has a sneaking suspicion that he knows more about it than you do or I do.

MR. LEWIS: Well, if that is what his experience in regard to switching is based on

HON. MR. McLAURIN: His silence was eloquent.

MR. LEWIS: he is justified in his suspicion, sir, but he would have to know a lot higher than that as far as I am concerned to become an expert.

Thank you, Mr. Chairman.

MR. SINCLAIR: No re-examination.

BY THE CHAIRMAN:

Q. Mr. O'Brien, this Exhibit 147, I suppose all you want in are the pages dealing with the general examination for helpers on diesel electric locomotives which would be three leaves, almost six pages. I notice that question two on this exhibit says:

"What routine inspection is required during each trip?"

And the answer is:

"Such periodic examinations of gauges and appliances as is prescribed for the special division on which the locomotive is operating the reporting of the necessary readings."

Now, what is referred to there? What was prescribed at the time this issue B in October, 1955 was made?

A. Actually, sir, that book probably did not get to our hands until October, 1955 and the firemen were already on the diesel engines and to my mind the whole book was a part of the mechanical examination for promotion to engineman.

While it reads there "Duties of a helper" I think you will find it is broken down into three series of examinations. Now, on the division that I am on we did have this Form 604 that has

been very much discussed(I think there is an exhibit in to cover it) and did do it and keep on

Q. Just a minute ...

MR. SINCLAIR: Exhibit 130, Mr. Chairman.

THE CHAIRMAN: Exhibit 130

THE WITNESS: Sheets one and two had a number of duties on.

MR. SINCLAIR: I filed it through Mr. O'Brien, you will remember.

THE CHAIRMAN: It says first issued April 6, 1951, reading from Exhibit 130, supercedes temporary form December 12, 1949.

BY THE CHAIRMAN:

Q. What do you say about this?

A. That was generally accepted as the fireman's duties. Now, through observation, general observations around the shop we found we were not getting the sheets property marked up and due to that it gradually fell into disuse. In fact, at a later date there was a bulletin put out cancelling it.

Q. Well, after the date of Exhibit 130 you had Exhibit 131 which deals with the engineman's locomotive inspection report and it is revised as of December, 1955 and what effect do you say the issue of that had on these questions and answers on Exhibit 147?

A Exhibit 147 is what you are referring to there?

Q Yes.

A This one here is purely the engineman's report and there are some duties that were expected of the fireman.

Q Exhibit 131 is purely enginemen?

A That is correct.

Q When did the firemen stop writing examinations based on Exhibit 147?

A They wrote them last year. I had issued the book sometime after. I cannot just recall the dates. I was anxious to get these men prepared to write their third year examination. I think, as Mr. Lewis said, they wrote it in June or something of last year.

THE CHAIRMAN: I think it would be of assistance, Mr. Sinclair, if this program of duties of enginemen and firemen was put together and sorted out as to considerations, examinations and so on, so that we will know what the story is and if it varied from division to division we will know that. We would then not have to pull it together from various places in the record.

MR. SINCLAIR: Yes, sir. I filed through other witnesses earlier Exhibit 7, which at pages 6 and 10 delineated the duties of firemen. I will also have as one of my

witnesses the Vice-President of Operations and Maintenance for the entire Canadian Pacific system. It was my intention to ask him about the exhibit that my friend has filed.

THE CHAIRMAN: Exhibit 147.

MR. SINCLAIR: Yes, and the reasons for the actions of the company.

THE CHAIRMAN: The information may be in but it is a little hard, or at least I find it so, to organize these things by topic and keep them in proper position.

MR. SINCLAIR: I certainly know that. I thought that maybe when it came time for summation that that would be when we could do it and be of some assistance to the Commission.

THE CHAIRMAN: No doubt.

MR. SINCLAIR: Or I could do it now with the material that is there to bring it into sequence for you at this time. In so far as that exhibit is concerned I was going to deal with it through the man who is --

THE CHAIRMAN: What are you going to say about it as a matter of evidence?

MR. SINCLAIR: What am I going to say about it as a matter of evidence? I am going to say how it was compiled, when it

was issued, what its purpose was, and why it was withdrawn.

THE CHAIRMAN: And when it was withdrawn?

MR. SINCLAIR: When, yes.

THE CHAIRMAN: When was it?

MR. SINCLAIR: It was withdrawn about three or four, maybe three or four months ago. I will also deal through that witness -- I understand that no one has been qualified on our lines on the book for promotion to engineman.

THE CHAIRMAN: That is sufficient for the moment.

MR. SINCLAIR: I would point out that that book deals with both steam and diesel and it is a book which has been compiled for many years.

THE CHAIRMAN: Quite so, but the pages we are speaking about deal with diesels only.

MR. SINCLAIR: That is right. I would just like to draw to the attention of the Commission the fact -- I do not know what you have in your hands -- but on the flyleaf of this book "Mechanical Examinations" there is a place for the name of the party and what he is employed as. Then it states:

"Instructions pertaining to
progressive mechanical examina-
tions for enginemen, firemen

"and helpers."

Then it is dated at the bottom, November 1955. That is one I will deal with when Mr. Emmerson is called.

BY THE CHAIRMAN:

Q Mr. O'Brien, these classes you were conducting in June, 1956; what classes were they?

A I had 22 men who had put in sufficient time to be eligible for promotion to enginemen. It is my responsibility to pass them on the first and second-year series of this book that we have as Exhibit 147, I believe it is. I had them write an examination and turn that in to me and then I along with the road foreman of engines held an oral examination based on that book.

Q I have not your evidence in chief very fresh in my mind because we have had another witness since, but what did you say as to whether or not firemen are required or expected to go out on the catwalk or deck of road switchers while the train is in motion?

A I do not approve of it, I think was the expression I used. I don't just recall how it was worded.

Q You do not approve of it, therefore

do you say they are not expected to do it?

A That is right.

Q In your class last June when this subject came up what did you tell the firemen about this practice of going out?

A It is all hazy to me, but in view of my thoughts in the matter I may have told them that it was permissible to go out at a very low rate of speed. That is about the best I can answer.

Q What would they go out for?

A Well, occasionally some of them like to get out there and get a switch at the front end and get into a siding in order to expedite a meet.

Q What else would you have in mind that they would want to go out for while the train was moving over the road?

A Well, there is nothing else that I can think of.

Q I was wondering if that is the situation why you would not tell them when the subject came up that they should not go out?

A Excuse me, I do recall I was on an engine when a fireman did go out at about 17 or 18 miles an hour and set an overspeed trip and I took no exception to it at the time. He was the most convenient one there. The engine

ultimately stalled anyway.

Q I am talking about these classes. When this situation came up as to whether or not firemen were expected to go out, at that time why did you not tell them they should not go out? I just want to get what was in your mind at the time you were conducting these classes.

A Frankly, as far as I can remember the classes, I just made it a question and answer period. I was dealing with that particular portion of the book as being one of the least consequence and I concentrated more on the steam than I did on that. I don't know if I did it, if I made some reference to them going out. Well, maybe I did; I cannot recall it absolutely.

THE CHAIRMAN: I don't know whether I can find that place again.

MR. LEWIS: It is the yellow sheet.

BY THE CHAIRMAN:

Q I just notice this also, which is a little different point. Question 4 reads:

"Why should the engineroom doors always be shut when an engine is running?"

On a road switcher those are the doors along the side?

A Yes, sir.

Q The answer is given to that. That question does seem to contemplate that the doors should not be open?

A That is correct.

Q If that is so why, when the subject came up, even in your question period, would not you tell the firemen not to go out, that they should not go out? That is what I am a little puzzled about.

A Well, I cannot recall now why I didn't. I may have been a little lax in my examination. That is about the only thing I can say.

Q I suppose in the correspondence between you and the local chairman which took place two years earlier this matter was not as clear?

A It was not as fresh in my mind then.

---The Commission adjourned at 12.20 p.m.
until 2.00 p.m.

--

--

--

Thursday,
April 11, 1957.

AFTERNOON SESSION

---The Commission resumed at 2.00 p.m.

MR. SINCLAIR: My next witness,
Mr. Chairman, is Mr. Arden Bybee.

THE CHAIRMAN: Excuse me for a
moment. With respect to Exhibit 142, we
have had an opportunity to consider this
matter. We are not in a position to say
at the moment how relevant the exhibit is
or what help it will be, but presumably,
having been put in on behalf of the railway
company, it is relevant, and as the company
has more divisions than the Smiths Falls
division it would seem to follow that if it
is relevant so far as one division is
concerned it is relevant so far as the
system is concerned.

We therefore think the infor-
mation should be produced. It may be,
Mr. Sinclair, that on further consideration
between yourself and Mr. Lewis the scope of
it may be reduced somewhat, but that is our
view.

MR. LEWIS: Before my friend goes
on with the evidence, I was going to say
that I think we left the question of the
filing of copies of Exhibit 147 rather in

the air. I do not know whether my learned friend proposes to supply the Commission with the necessary copies. Otherwise I am prepared to photostat the relevant pages. I wanted to know what the instructions were about that.

MR. SINCLAIR: I will supply copies of the document to the secretary.

THE CHAIRMAN: I do not know that the whole book is relevant. Perhaps the flyleaf, to which you referred, and the yellow sheet that was read would be enough, or if you want the whole thing then put in the whole thing.

MR. SINCLAIR: Whatever the Commission wishes. If they are set up in this form we can --

THE CHAIRMAN: All I am thinking about, I think all we are thinking about is that there is no use putting in a lot of bulk that is not relevant, and if the only sheets of that exhibit that are relevant are the ones I have mentioned would it not be easier to photostat those and put them in?

MR. SINCLAIR: We will extract them from the book.

THE CHAIRMAN: All right.

Next witness.

MR. SINCLAIR: Mr. Arden Bybee.

ARDEN BYBEE, sworn.

EXAMINED BY MR. SINCLAIR:

- Q Mr. Bybee, you reside at Sept Iles, Seven Islands, Quebec?
- A Yes, sir.
- Q And your position is superintendent of the Quebec, North Shore and Labrador Railway?
- A Yes, sir.
- Q Your railway experience, Mr. Bybee, before coming to the Quebec, North Shore Railway was with the Union Pacific in the United States?
- A That is right.
- Q You entered the service of the Union Pacific as a trainman in July of 1923?
- A Yes.
- Q You were promoted to a conductor on that railroad in September of 1937?
- A Yes.
- Q You were promoted to a travelling conductor on the Union Pacific in August, 1941?
- A That is right.
- Q What is a travelling conductor, Mr. Bybee?
- A He is a supervisor, road supervisor of train and enginemen, sometimes referred to as assistant trainmaster on that particular railway.

Q You were promoted to superintendent on the Union Pacific in October, 1947?

A Yes, sir.

Q And you were superintendent of the Idaho division?

A That is right.

Q How many miles did the Idaho division cover?

A A total mileage of 2,300 miles, right at 2,300 miles.

Q Pardon?

A Right at 2,300 miles.

Q What states did it run through, the Idaho division?

A It was partly in Wyoming, Idaho, Montana and Oregon.

Q You held this position until December, 1953, until you were released on loan to the Quebec, North Shore and Labrador Railway, and you came up to that railway in December, 1953, to take the position you now have, that is, superintendent of the Quebec, North Shore Railway. Is that right?

A That is correct as to when I came to the Quebec, North Shore and Labrador Railway. However, I was assistant superintendent on the Union Pacific from January, 1952, until November, 1953.

THE CHAIRMAN: Excuse me; where does the Quebec, North Shore and Labrador Railway run?

BY MR. SINCLAIR:

Q Where does the Quebec, North Shore and Labrador Railway run?

A From Seven Islands, Quebec, northward 357 miles to Shefferville or better known as Knob Lake, Quebec.

HON. MR. McLAURIN: It is owned by --

MR. SINCLAIR: The Iron Ore Company of Canada.

THE WITNESS: Yes.

BY HON. MR. McLAURIN:

Q And controlled by Hollinger and Consolidated Coal?

A That is right.

BY MR. SINCLAIR:

Q To go back to the days you were working on the Union Pacific, when you were in train service on the Union Pacific as a trainman and later as a conductor what kind of power were you running with, Mr. Bybee?

A Steam power entirely.

Q When did you start to receive diesels on the Union Pacific in the territory in which you were?

A Late in 1940 in freight service. We

had that power in passenger service previous to that, but in freight service late in 1940.

Q And was that when you received your first experience with diesels, late in 1940?

A Yes, sir.

Q And did you or did you not have much experience with them between late 1940 and when you left Union Pacific on loan in December of 1953?

A Yes, I worked with diesel power during all of that period.

Q What was your experience as to the diesel power that you got on the Union Pacific? Let us say starting at the end of 1940. Did you or did you not have trouble with it or what was the situation?

A At the beginning we did have considerable trouble. They were brand new, of course, to us, and we had quite considerable electrical and mechanical troubles with our first diesels.

Q And did that improve as the years went on?

A Quite rapidly, yes. As soon as our servicing and repair and attendance were properly set up we had very little trouble.

Q Were there design changes in the period affecting the performance of your diesels?

A We obtained new diesels right along but the old diesels were not discarded. They were improved.

Q With new components?

A Yes, sir.

Q On your earlier Alco diesels, had you some problems with crankshafts, Mr. Bybee?

A Yes, we had with the road switcher type Alcos. We had considerable crankshaft trouble.

Q What about the traction motors on these units?

A We had traction motor troubles on all of our units to start with, regardless of the make.

Q Now, based on your experience on the Union Pacific as a trainman did you or did you not include in that any yard service?

A Yes, I had some yard service.

Q As a yardman?

A As a yardman, yes, sir, and I worked in the small yard as yardmaster also.

Q You worked in the small yard as a yardmaster?

A Yes, sir.

Q Where was that?

A At Silver Bow, Montana.

Q When you were working in the yard were there diesel yard switchers?

A No, sir.

Q When you were supervising were there diesel yard switchers under your jurisdiction?

A Yes, sir.

Q As well as road diesels?

A Yes. As a matter of fact, we had the yard diesels first on our division.

BY THE CHAIRMAN:

Q When did you get diesels on freight service first?

A Late in 1940 and they increased from then on, the number that we had.

BY MR. SINCLAIR:

Q Based on your experience as a yardman and in supervising yards with diesel yard switchers, Mr. Bybee, did you come to any conclusion or did you not as to whether firemen were required to be assigned on yard switching diesel locomotives?

A Personally I did come to the conclusion quite early in the use of diesels that the fireman was actually not required on the yard diesels or other diesels, in fact.

Q Or on the other diesels. What did you mean by that?

A Road diesels, as well.

BY HON. MR. McLAURIN:

Q What is the crew set-up of the Union Pacific in the yard and on the road?

A Yard crews, engineman, fireman, engine foreman and two helpers.

BY MR. SINCLAIR:

Q Did you say engine foreman and two helpers?

A Yes.

Q And on the road?

A On the road a conductor, two brakemen, the engineer and fireman. There are some states that have laws that require additional trainmen according to the length of train or the weight of train.

Q Were any of those states the ones you have mentioned?

A Yes, Oregon is one on that division, yes, sir.

BY HON. MR. McLAURIN:

Q Did one of the trainmen ride with the locomotive along with the fireman and the engineer?

A Yes, sir.

Q Continuously while it was in motion?

A Yes, sir.

BY MR. SINCLAIR:

Q Did that apply to both steam and diesel power, Mr. Bybee, on the Union Pacific?

A Actually and to the best of my memory, why the head brakeman was always required to ride the locomotive when he was not engaged in some particular other duty but it was not made such an important thing until the diesels were actually brought in.

BY THE CHAIRMAN:

Q Did you have three men in the cab in both freight and passenger?

A No, sir, just two in passenger service.

BY MR. SINCLAIR:

Q Mr. Bybee, you said that personally you came to this view. What did you have in mind by underlining "personally"?

A Well, I do not want to pretend to speak for the Union Pacific because I have no authority or no information either.

Q I did not try to qualify you in that regard, Mr. Bybee. You are speaking here for yourself and for the Quebec, North Shore, I take it?

A That is right.

Q Have you been authorized to speak on behalf of the Quebec, North Shore by its management?

A Yes, sir, I have.

Q Now, what use was made of firemen on freight diesels on the Union Pacific when you were supervising them?

A In road freight service our firemen were required to patrol the units regularly and I would not -- I cannot remember the exact details of their requirements but generally they were to patrol the units at least once each thirty minutes to check^{for} anything that might be wrong in the units, and that was practically their only requirement.

BY THE CHAIRMAN:

Q That was practically what?

A Their only requirement other than the normal requirement of assisting the engineer.

BY HON. MR. McLAURIN:

Q And looking?

A Yes, sir.

BY MR. SINCLAIR:

Q In yard work what were the firemen required to do on diesels on the Union Pacific?

A Simply assist the engineman.

Q On the Union Pacific, based on your yard experience and supervising of yards, how are signals relayed in yard switching operations, Mr. Bybee? How were they when you were there?

A The signals are required to be given on the engineman's side by rule when it is possible to do so, and that is the general practice.

Q On road freight operations on the Union Pacific was there switching en route performed by freight trains?

A Yes, sir, a good deal.

Q Was the fireman or was he not used as a signal passer in road freight switching en route?

A There were occasions when he was used to relay signals but it was not the general thing.

Q When he was used, why would he be used, Mr. Bybee?

A Generally as a matter of convenience where the track curvature would prevent the engineman from easily seeing the signals on his side or would prevent the trainman from easily giving signals on his side.

Q On his side?

A On the engineman's side.

Q You came to the Quebec, North Shore and Labrador in December of 1953?

A Yes, sir.

Q Was the railroad completed at that time?

A No, sir, in mileage it was about 80 per cent completed at that time.

Q And had they been running trains at all before you got there?

A Running supply trains with supplies to the builders at the end of the line and also work trains that were engaged in the actual building.

--

--

--

Q. And were these work trains and supply trains, what kind of trains were they when you first came there?

A. They were quite ordinary set-up work trains and trains hauling supplies. Trains that went up from Seven Islands were hauling rails, ties, tie-plates.

BY HON. MR. McLAURIN:

Q. Diesel power?

A. Yes.

Q. Exclusively?

A. Entirely.

BY MR. SINCLAIR:

Q. And what was the management policy of the Quebec North Shore as to manning of these trains in regard to crew assignments?

A. When I first went to to work there and as far as I know from the time that the power was first used it was used with a ground crew of three men and an engineman only.

Q. That applied or did it not to switching operations and road operations?

A. Yes sir.

Q. Both?

A. Both, yes sir.

Q. Now, what is the inventory of the motive power on the Quebec North Shore and Labrador railway -- what kind of power

have you?

A. At present we have 68 EMD road switchers.

Q. That is what are known as General Motors?

A. General Motors, yes sir, and two Alco road switchers and two small General Electric yard engines, 750 horsepower yard engines.

Q. Now, your General Motors units, road switchers all of them?

A. Yes sir.

Q. How many horsepower are they?

A. All but nine are 1750. Nine are 1500.

Q. That is, 59 of those General Motors road switchers have a horsepower of 1750?

A. Yes sir.

Q. And nine have a horsepower of 1500?

A. That is right.

Q. And your Alco road switchers, what horsepower are they?

A. They are both 1500.

Q. And you mentioned that your General Electric yard switchers were 750 horsepower?

A. That is right.

Q. Now, the yard work on your railway at the Seven Islands terminal, what type of power is used in that?

A. The two small engines, the General Electric 750 horsepower engines are used there exclusively. They are not used anywhere

else and usually the two Alcos are used in that terminal.

Q. The two road switchers 1500 horsepower?

A. Yes.

Q. At your other terminal, that would be at Silver?

A. Silver yard is where the mines are, yes sir.

Q. And what kind of power do you use in yard work there?

A. They use a General Motors EMD. They only have engines there during the mining operation and they are furnished out of the general pool of engines whatever they need.

Q. That is, out of the 59 you spoke of earlier?

A. The 68, yes.

Q. The 68 you spoke of earlier?

A. Yes sir.

Q. And what are the crew assignments on the 750 horsepower units and the 1500 horsepower units working at Seven Islands?

A. They use an engineman and a ground crew of three.

Q. And what about the crew assignments up at Silver?

A. It is the same.

Q. An engineman and three ground men?

A. Yes sir.

THE CHAIRMAN: What kind of rolling

stock have they?

BY MR. SINCLAIR:

Q. What is your inventory of rolling stock, Mr. Bybee?

A. We have 2853 ore cars ...

BY HON. MR. McLAURIN:

Q. Gondolas?

A. Solid bottom gondola type ore car. 230 general purpose freight cars ...

BY THE CHAIRMAN:

Q. Box cars?

A. Box cars, flat cars, gondolas and there are 20 passenger cars included in that, about 20.

BY HON. MR. McLAURIN:

Q. In that 230?

A. Yes sir and all of our work equipment 175 ballast cars and 57 ore dump cars and miscellaneous equipment and boarding cars amounts to 310 units.

BY MR. SINCLAIR:

Q. On your diesel power how many control stations are there in the cab?

A. Only one.

Q. On what side is it?

A. On the right-hand side.

Q. You have no dual control diesels?

A. No sir.

Q. When was your diesel power first purchased?

A. The first power was purchased in 1951 and that power has been added to every year since then up to its present number and we are getting six more EMD's this year.

Q. Mr. Bybee, we have been trying to call these General Motors. EMD means Electro Motive Division of General Motors?

A. Yes.

Q. Well call them General Motors.

A. I will try to remember that.

THE CHAIRMAN: What was EMD?

MR. SINCLAIR: The phrase "EMD" means Electro Motive Division of General Motors.

BY MR. SINCLAIR:

Q. Were these diesels that the Quebec North Shore purchased, were they purchased in Canada from General Motors?

A. They were all purchased from General Motors in Canada I believe.

Q. And the Alco?

A. I am not sure of the Alcos.

Q. How many units do you run in the locomotive consist of your railway?

A. In ore train service with 100 or 105 cars we use three units. With 125 cars or 130 we use four.

Q. And on the work train service how many units?

A. Just one unit for each train.

Q. And in general purpose operations, freight operations other than ore service how many units in the consist of a locomotive?

A. Just what is required as the matter of tonnage.

Q. What would be the practice?

A. Generally two and sometimes three.

Q. Generally two and sometimes three?

A. Yes.

BY THE CHAIRMAN:

Q. I am not sure I got the distinction you made between the three unit consist and four unit consist?

A. In ore service, sir, 105 cars three units; over that four units.

Q. Then you said that you used only two units for ore car service. In what circumstances?

A. In general service we use two but depending on the tonnage of the train itself we add to that.

Q. What do you mean by "general service"?

A. Ordinary freight service.

BY HON. MR. McLAURIN:

Q. Taking supplies to Knob Lake?

A. Yes sir.

BY THE CHAIRMAN:

Q. Excuse me while I think of it: are there intermediate stations or things you call stations between the termini?

A. There are 27 sidings which are in effect stations and one crew change point. There are no settlements of any kind other than our own section camps.

BY MR. SINCLAIR:

Q. Do you carry goods for other companies like, for instance, the Javelin development?

A. Yes, we have quite a lot of freight for people other than our own -- Javelin or Wabish Lake Railway they call them there and Brinco Power Development people they get some freight up the line. Bell Telephone has had a good deal of freight into Knob Lake and the Dew Line contract, the various contractors connected with that have had a great deal and the building contractors at Knob Lake.

THE CHAIRMAN: Is this witness going to tell us about the fixed signal system in use?

MR. SINCLAIR: Yes sir, I am moving into that now.

BY MR. SINCLAIR:

Q. You mentioned to the Chairman that there was one change-off crew point. First, before I ask you that I think you said your railway was 357 miles long?

A. Yes sir.

Q. Is it a single or double track railway?

A. It is single track.

Q. And what type of terrain does the railway run through?

A. Well, from Seven Islands for ten miles it is simply a coastal plain with some spruce, ordinary bush, and then we cross the Moisie River and following that canyon from Mile Twelve to Mile Eighty ...

Q. In the canyon?

A. In the canyon. It is not the Moisie Canyon all the way but we follow that continuous canyon for that distance. After we pass Mile Eighty it is seventy miles to the height of land to where we enter Labrador which is a huge flat plateau in that area and from Mile 150 clear to the mine area is clear, plateau area. It is mostly lakes and stunt spruce.

BY HON. MR. McLAURIN:

Q. Is there a divide 150 miles north of Seven Islands?

A. It is 2,090 feet elevation and after you go for 150 miles north of Seven Islands you start going down.

Q. Not very much ...

A. It is 700 feet lower at Knob Lake than at 150 miles north of Seven Islands.

BY MR. SINCLAIR:

Q. Have you much tangent track on your railway

on the Quebec North Shore, straight stretches of tangent track?

- A. There are no ~~long~~ straight stretches but there are a lot of short ones.
- Q. What is the longest section of tangent track you have in your 350-odd miles?
- A. About two miles.
- Q. You have no place where the track is straight any more than two miles?
- A. No sir, I think not.
- Q. What type of road-bed have you? When you get out of a canyon -- where it would be rock, I take it, in the canyon?
- A. The side-hill grade in the canyon, a good deal of it is solid rock. Also a good deal of it is on clay. It crosses a lot of small streams but after we are out of the canyon it is just bush country to the height of land and from there on it is generally low ridges and muskeg country the last 200 miles.
- Q. In this clay would you or would you not have pumping of track, difficult maintenance problems in pumping?
- A. That drainage problem is a problem over almost the entire line and there is pumping incident to that, pumping of track. It does improve, however, quite rapidly. The country does drain slowly but it does drain.
- Q. As a result of your operations do you or do you not have much work trains on your line

and when do you do your maintenance work on your line?

A. Well, the season that we can work the track and the grade is so short that our maintenance and repair program is concentrated and generally from the 1st of April to late November we don't have less than four work trains on the line.

Q. Not less than?

A. Not less than four, that is right. Now we have six on. As our traffic increases we will cut that down all we can to keep them off the railway.

Q. Do you run heavy trains, ore trains -- what tonnage would you haul, say, in an ore train? What would your tonnage be?

A. 130 cars of ore amounts to right at 16,000 trailing tons, that is, gross tons.

Q. 16,000?

A. Yes sir.

Q. Which would be pulled by the four units?

A. Yes sir.

Q. And your ore trains would operate south, would they, all of them?

A. All of them. All of the loaded trains, yes sir.

Q. And it would be empty movement back?

A. Yes sir.

Q. How many months of the year do you haul ore on your railway, Mr. Bybee?

- A. Approximately between 6-1/2 and 7 months, from about May 1 until November 10 or 15 depending entirely upon the climate, on the weather.
- Q. What happens to the ore after that? Is it the ore that stops you hauling?
- A. It is the frozen ore. It is difficult to handle it out of a car and it does not handle well with the machinery we have to handle it with once it is frozen.
- Q. Now, how many ore trains would you operate each day when you are running ore?
- A. Through the best months, July, August, September and most of October last year we operated an average of about 8-1/2 trains each way a day in ore service.
- Q. Each way a day in ore service?
- A. Yes sir.
- Q. That would be an average of 8-1/2?
- A. About that, yes sir.
- Q. That would be an average of 17 trains either southbound or northbound in ore service on the average through that period?
- A. Yes sir.
- Q. And at that time what would your general purpose trains be? How many general purpose trains would you have?
- A. We operate an express train up and back twice a week and a freight train about

every four days and at the odd time there is some other service required. It would run from three to four or five trains a week round trips.

Q. Each way?

A. Yes sir.

BY THE CHAIRMAN:

Q. Is the railway shut down at the end of November?

A. No sir, we operate the express train the year round and also this freight service as it is required up there.

BY MR. SINCLAIR:

Q. Throughout the year?

A. Throughout the year, yes sir.

Q. Now, this point you mentioned of the crew change-off point, how many miles would each crew run on your railway?

A. During the ore season we let the crews run at least 6,000 miles, earn at least 6,000 miles a month.

Q. And for each run how many miles would they go, the crews?

A. For each individual tour of duty?

Q. Yes.

A. Well, it is 182 miles from Oreway, the changing point to Seven Islands and 170 miles from there north.

Q. And would two crews bring the trains down, one from Silver to Oreway, that

is 172 miles where it would be changed off and another crew bring it the other 182 miles?

A. That is correct, yes sir.

Q. You say that is during the ore season. What do you do in non-ore season as to change-off of crews?

A. The express train service operates through. The crew runs through on that train from Seven Islands to Shefferville and the ordinary freight service ordinarily they take rest at Oreway.

Q. The crews take rest at Oreway?

A. Yes, and the train is delayed while they rest.

Q. That is, after 180 miles?

A. Yes sir.

BY THE CHAIRMAN:

Q. What do you do with the train crews of the ore trains in the off-season when a train is not running?

A. They are laid off, they are cut off in the order of their seniority.

BY MR. SINCLAIR:

Q. Are your employees organized on the Quebec North Shore?

A. Yes sir, we have contracts with the B of RT and the B of LE.

Q. Your collective agreement with the B of RT -- that is the Brotherhood of Railway

Trainmen?

A. Yes sir.

Q. Who would that cover?

A. All of the conductors and trainmen.

Q. All of the conductors and trainmen?

A. Yes sir.

--

--

--

--

Q And yardmen?

A No, I do not have any yardmen under my jurisdiction and it does not cover yardmen.

Q In regard to the contract with the Brotherhood of Locomotive Engineers, or collective agreement; that covers what?

A Just locomotive engineers.

Q Are those the same two organizations that have contracts, for instance, on the Union Pacific?

A Yes, sir.

Q Those are international labour organizations?

A That is right.

Q Known as the Brotherhood of Locomotive Engineers and the Brotherhood of Railway Trainmen?

A That is right.

Q Did the Brotherhood of Locomotive Firemen and Enginemen attempt at any time to organize the employees of your railway, the enginemen; do you know?

A Yes, sir. In 1954 when the first agreement was made effective the B. of L.F. and E --

Q That is the Brotherhood of Locomotive Firemen and Enginemen?

A Yes, sir. They were represented there among the men during that time.

Q Now, in your operations what kind of signalling have you for your railway?

A We have continuous automatic CTC block signals over the entire railway.

Q Your centralized traffic control, is it modified or complete CTC?

A It is modified to the extent that we have some sidings with spring switches at their north end that do not have a full set of signals in connection with that particular switch.

Q What was the reason for putting in centralized traffic control on your railway, Mr. Bybee?

A The decision to do that was reached before I was with the company, but it is my understanding that the installation was considered and made on the basis of economy and safety.

Q The basis of what?

A Economy and safety.

Q How far apart are your open telegraph stations?

A We have train order offices at Seven Islands, at Oreway, which is at Mile 186, and at Silver, the end of the line.

Q You only have three train order offices on your railway?

A That is right.

Q When you are operating on the Quebec, North Shore do you operate 24 hours a day, or are you restricted as to hours or anything of that nature?

A No, sir, we operate 24 hours a day.

Q Is there any exception on the Quebec, North Shore and Labrador to the crew assignments that you have stated, that is an engineman and three ground crew in switching, and an engineman and conductor and two trainmen in road work?

A No, sir, there has been no exception.

Q On your express passenger trains, would that apply also?

A Yes, sir.

Q Where do your crew on your freight trains ride?

A The engineman and head brakeman ride in the control cab locomotive.

Q In the leading unit?

A The leading unit, and the flagman of course rides in the rear car of the train.

Q Where does the conductor ride?

A Wherever he chooses to ride; usually in the caboose.

Q On your express passenger train, how many hours would it take to go up from

Seven Islands to Knob Lake?

A In the summer time, about 12 hours;
after the ore train operation, approximately 10 hours.

Q Where do the four men of the crew,
where are they placed on your express
train?

A The engineman and head brakeman are in
the control cab of the locomotive and
the flagman is at the rear. The
train conductor of course works the
train.

Q In your operations are you governed by
any code of operating rules?

A Yes, sir, we are governed by the Uniform
Code of Operating Rules.

Q There has been filed here as Exhibit 27
a booklet which is entitled "Uniform
Code of Operating Rules. Canadian
Pacific Railway Company", and which
is indicated as being approved by the
Board of Transport Commissioners in
August, 1951.

A We operate by that same book, yes, sir.

Q The book you are showing me is the same
as Exhibit 27 except that the cover
states "Uniform Code of Operating
Rules. Quebec, North Shore and Labrador
Railway Company"?

A That is right.

Q Is your railway under the jurisdiction of the Board of Transport Commissioners?

A Yes, sir.

Q Is your railway a common carrier?

A Yes, sir.

Q Under the Railway Act of Canada?

A Yes, sir.

Q And you are subject to the jurisdiction of the Railway Act of Canada?

A Yes, sir.

Q And the orders of the Board of Transport Commissioners?

A Yes, sir.

BY THE CHAIRMAN:

Q You are subject to the same inspection as the other railways in Canada?

A Yes, sir.

BY MR. SINCLAIR:

Q Taking your freight trains, under your operating procedures what kind of inspections do they receive, Mr. Bybee; what kind of inspections over the road?

A Just over the road?

Q Yes.

A They are inspected as the Uniform Code of Operating Rules requires, and our crews are required to make inspections of their trains at every opportunity, which practically repeats one of the rules in the Uniform Code of Operating Rules.

Q When you say make an inspection at every opportunity, do you mean a standing inspection?

A A walking inspection.

Q That is what we have been referring to here as a standing inspection. I can see why you smile. The term "walking inspection" may be better, but I am trying to keep any difference in language out of this as much as I can. What about running inspections; do you make running inspections on your trains?

A The crews are required to make a roll-by inspection leaving the terminals. There are no other provisions made for running inspections.

Q Do the crews look back when they are on curves?

A Yes, sir, as the rules require they inspect their trains and other trains.

BY THE CHAIRMAN:

Q That is while the train is running?

A Yes, sir.

Q What was the inspection you said was made when leaving the terminal? Is that a walking inspection?

A No, they let the train roll by them and inspect the train closely. We call it a roll-by inspection.

Q In referring to those inspections,

Mr. Bybee, would you be referring to Rule 111 of Exhibit 27; would you have that in mind?

A Yes, sir.

Q That is the rule you work under?

A Yes, sir.

Q Mr. Fraine brings to my attention that the train stands and the men walk on the standing inspection. That seemed to make Mr. Bybee smile and apparently my friend Mr. Fraine also.

MR. LEWIS: The opposite happens as well.

THE CHAIRMAN: I think we followed you.

MR. SINCLAIR: I do not think I confused the Commission. I hope I did not confuse the witness either in the way I put the question.

MR. LEWIS: I think to complete the record it should be noted that the opposite could apply, where the man stands and the train rolls by.

BY MR. SINCLAIR:

Q That is what you call a roll-by inspection?

A Yes, sir.

Q Who does that, the flagman or the head trainman or both?

A The flagman and the conductor or one of them.

BY THE CHAIRMAN:

Q The head trainman could not do that as he could not get back in the cab?

A It would be the wrong end too, yes, sir.

BY MR. SINCLAIR:

Q When your trains set out a car or pick up a car or set out a number of cars or switch out a cripple en route, Mr. Bybee, how are the signals handled?

A The signals are given on the engineman's side of the train.

Q Say it is on a left-hand curve?

A Well, if it is, why they have to handle it according to whatever the circumstances are. All our engines and cabooses are equipped with radio and we have walkee-talkees provided in most cases for switch moves where there may be difficulty with signals, but otherwise they just have to handle cuts short enough to handle the signalling on the engineman's side.

Q Do your conductor and rear trainman or flagman as you call him; does he come up?

A The conductor does, and at some places the flagman can come up as well.

Q If he is required in the switching move?

A Yes, sir.

BY THE CHAIRMAN:

Q I do not suppose it is very often that a train crew would have to stand on top of any car?

A No, it is very seldom that they do. There could be an occasion where he would.

Q Would he stand on top of an ore car?

A A loaded car, perhaps he could, but not an empty.

BY MR. SINCLAIR:

Q I do not know anything about this, but is iron ore a stable product?

A Yes, very dense. You could walk on it all right.

Q These are high-sided gondolas, are they?

A Yes, sir.

Q And when they are empty there is a very high side?

A Yes, they are approximately five feet high.

Q They are not low-sided gondolas?

A No, they are deep cars.

Q Deep cars. About how many tons would each car hold of iron ore, or how heavy do you load them?

A We load them to 88 long tons.

Q 88 long tons per car?

A Yes, almost exactly 100 short tons.

Q Have your operations expanded in the years since you have been there? Are

you handling more traffic or what is the situation?

A Yes, sir. The first year, of course, was just a part year in 1954, the year the line was completed. Then in 1955 we got up to a little over 7,000,000 tons. In 1956 we got over 12,000,000 tons. This year our goal is 13,000,000 tons or a little better.

Q I have been given this statement of your operations, Mr. Bybee, dealing with your operations in 1956. I am going to read it to you and ask you if it is right. Dealing with your operations it says:

"More than 12,000,000 tons of ore moved southward over this 356-mile line last year from Schefferville to Sept-Iles. Even more impressive was the fact that this ore moved over this single line track in less than six months. In the shipping season, empty ore trains and full supply trains are constantly moving north and full ore trains move south with their cargoes of 70,000-80,000 tons of ore per day."

Is that a correct statement of your operation?

A Reasonably so. It would not be that tonnage every day. On our good days it would be that much, and it is also a little over six months.

Q Did you write that statement or check it?

A No, sir.

Q But you say it is reasonably accurate?

A Actually our first train of ore last year, I am quite sure, was April 26 and our last one was November 15, which is a little over six months.

Q What type of safety record have you had on your railway, Mr. Bybee?

A I believe it is quite good, our operating safety record. Our personal injury record for the entire operation is probably not good, but our operating record is good, I believe.

Q Your train accident ratio is good?

A Yes, sir.

Q On these diesels that you have running up there, or on the diesels that you are familiar with, have you ever had the experience of a fire on your diesels?

A No, sir, I know of no case where we have had a fire on a diesel. We had one diesel that caught fire underneath from running over a piece of

gasoline-driven track equipment.

Q That was an accident?

A Yes, sir.

Q You hit a piece of gasoline-driven track equipment?

A Yes, sir.

Q And that started a fire?

A Yes, sir.

Q Under the diesel; is that what you mean?

A Yes, sir. That is the only case I know of. It was not serious. It burned the insulation off the cables of the traction motors, that was about all.

Q Mr. Bybee, do you think you could improve your operating or your safety or train accident record, your safety rate, by putting another man in the cab of your leading unit on these trains you are running?

A No, sir, I do not.

Q Has that ever been discussed by you with your management or your people, the assigning of a third man on your freight trains at the head end?

A No, sir, it has not.

Q Have you had complaints from the engine-men or the trainmen about operating without a fireman on these diesels?

A No, sir, we have not.

Q None at all?

A None at all.

Q When you were given the responsibility of running this railroad, Mr. Bybee, were you or were you not concerned with the fact that you were going to be operating these trains without firemen?

A I was not concerned, sir. I was not.

Q Why not?

A Because of the fact that I did not believe that firemen were at all necessary on the diesel power, in that type of service especially.

Q In that type of service especially. What do you mean by "that type of service" ?

A Well, it is strictly freight service and the second man for the cab is always available when the train is moving.

Q In running your diesel power how many miles do you run it between inspections, Mr. Bybee?

A We do not inspect our power on a mileage basis. We inspect it monthly --

Q Monthly?

A And semi-annually and annually.

THE CHAIRMAN: We will break here,

Mr. Sinclair.

-- Recess.

-- On resuming.

BY MR. SINCLAIR:

Q Mr. Bybee, if a protective device, sometimes referred to as an alarm, applies on say the second or third unit of a consist of one of your ore trains or your freight trains, what happens?

A Ordinarily if it requires attention right at the time, if the engineman believes it does, he stops and attends to it. Otherwise he will go on with the power that he has to the next siding and report the matter if he cannot fix it.

Q What has been your experience with such alarms as ground relays, hot engines, low lube?

A We have not had a great deal of trouble with them at all.

Q Engine overspeed? Have you had trouble with them?

A No, sir, we have not.

Q What about your enginemen personnel? As your railway has expanded, have you needed more enginemen?

A Yes sir.

Q Where did you get them?

A Most of our enginemen are experienced

men off either the C.P.R. or C.N.R. and we have promoted some of our own men there.

Q Promoted some of your own men --

A From our trainmen, some of our trainmen have been promoted to enginemen.

Q How many, Mr. Bybee?

A Eleven all told, I believe.

Q Eleven?

A Y s, sir.

Q And what type of training would you give them on their promotion from trainman to engineman?

A They are men who have been promoted on the recommendation of the enginemen and are road foreman of engines to start with. They have learned the work as trainmen, and then when we have been satisfied that they have qualified themselves in connection with the handling of the air brakes and the diesel locomotive, why we put them on as student enginemen and let them break in until they are considered satisfactory, usually from ten days to three weeks.

Q As student enginemen?

A As student enginemen, yes sir.

Q Prior to that have they written their "A" books?

A Yes, sir, they of course write the rule

book.

Q Have they passed whatever mechanical examinations you require them to pass?

A Yes sir.

Q And these men who have done this and taken this training, have you personally ridden with any of them?

A Yes sir, with all of them.

Q And how do you find them as enginemen?

A They have done very well. Of the eleven men we have promoted so far, three of them did have experience as firemen before they came to us and the others were all trainmen.

Q Did they have railway experience as trainmen on other than your railway?

A Some of them did. Three of them did not. Three of them had all their experience right there.

Q Their first railway experience was with your railway?

A Yes sir.

Q And how have those three turned out?

A Very well. They were the second three that were promoted, those three.

Q Now, there is one question I overlooked earlier, with your permission, Mr. Chairman. On the Union Pacific when you were running and supervising, in the area you were running did you have highway crossings

at grade level, level crossings?

A A great many of them, yes sir.

Q Have you got any idea about how many you would have had in that territory?

A Yes, on the Idaho division there were more than two thousand level crossings.

Q Were they all protected with automatic protection or were they not?

A No sir. Approximately half of them were and the rest were not.

Q And on the Quebec, North Shore I take it that up to the present there would not be many highway crossings at grade level or separated or any other kind?

A We only have one that could be called a highway crossing. It is right at Seven Islands.

Q And based on your experience on the Union Pacific with highway crossings and in the light of your experience on the Quebec, North Shore, would the fact that you had highway crossings affect your opinion as to the crew assignments on these freight trains?

A No sir, not at all.

Q Mr. Bybee, in the light of your experience on the Union Pacific and on the Quebec, North Shore, is the railway you are running now a different kind of railway than we are used to, the normal kind of

railway? Is it a different kind of railway or how would you compare it with what everybody is used to?

A No, I do not see any particular difference in the railway. There is a good deal of difference in the country that it serves but not the railway itself.

Q When you were running in train service did you ever run as a conductor where you were on train orders and time-tables?

A Yes sir.

Q Rather than signal indication?

A Yes sir, all of my train service experience was with train orders.

Q And time-tables?

A Yes sir.

Q If your railway were operated on time-table and train orders rather than centralized traffic control, would that or would it not have any effect on your views as to crew assignments on freight trains?

A It would have no effect on the crew requirements that I see.

Q Who is in charge of your freight trains on the Quebec, North Shore?

A The conductor.

MR. SINCLAIR: Please answer my friend.

BY THE CHAIRMAN:

Q I suppose that your railway has its own repair shop?

A Yes sir, we have shops at Seven Islands only.

Q And any work that is done on these locomotives has to be done by you?

A That is right.

BY HON. MR. McLAURIN:

Q How would the density of traffic compare with the Idaho division with which you are so familiar? I realize there would be many more passenger trains on the Idaho division, but to what extent are they comparable?

A I would estimate that in main track business we handle approximately half of what the Idaho division would handle.

Q That is half of the Union Pacific operation?

A Of that portion of it.

Q And the Idaho division is part of the main line, Chicago to Seattle and Portland?

A Yes sir.

BY THE CHAIRMAN:

Q Is the Union Pacific in that division single track or double track?

A It is mostly single track. It has some double track. That division, with 575 miles of main track, of the first main track there is about 75 miles of double track all at either side of the terminals

and on the two hills.

EXAMINED BY MR. LEWIS

BY MR. LEWIS:

Q Mr. Bybee, I would gather that the trainmen on your Quebec, North Shore trains never have to line a switch? Is that right?

A Ordinary train operations they do not have to line a switch.

Q What do you mean by the qualification, ordinary train operation?

A Well, if there is cars to be set off or picked up or there is something wrong with the centralized traffic control system here and there, why the switches have to be lined by hand.

(2) Q Has it happened that your C.T.C. system has gone wrong?

A Not often but at times, yes.

Q It has happened?

A Yes.

Q But normally they do not have to line any switches by hand?

A Except at the two terminals.

Q At the two terminals?

A The two terminals, the switches are all hand operated.

Q In the yards?

A Heading into the yards and the yard
trackage, yes sir.

BY THE CHAIRMAN:

Q I did not follow what you said about
setting off or picking up cars. Do the
switches have to be thrown by hand there
or only when the C.T.C is out of action?

A Generally they are handled by hand in
setting off or picking up or in switching
moves.

BY MR. LEWIS:

Q You mean en route?

A Yes sir.

Q When you go into one of the sidings
they handle the switches by hand?

A Of course, the tracks off the sidings
would all be handled by hand and the
C.T.C. switches themselves other than
the first move to do the switching, it
is by hand, yes sir.

Q And what weight is your track on the
Quebec, North Shore?

A We have 132 pound rail.

Q 132 pound rail?

A Yes sir.

Q I don't know anything about it but that
is considered pretty --

A It is heavy rail.

Q Pretty heavy rail. Have you any idea
what the C.P.R. rails are?

A I really don't know.

Q Your rolling stock is all pretty new, is it?

A It is all relatively new, yes sir.

Q And I understand from articles I have read that all your cars run on roller bearings?

A All of the ore cars do.

Q And I have been told that means that you almost never get a hot box on a car? Is that right?

A That is right, yes sir.

Q And I understand that your draw gear between cars, that you have large over-size drawbars? Is that right?

A That is right. It is definitely heavy duty equipment.

Q And I also understand that you almost never experience a drawbar being pulled between cars.

A We have had that happen.

Q You have had that happen?

A Yes.

Q Often?

A Often enough, yes sir. It has happened, yes sir.

Q What about the grades on your lines? Are they very heavy grades?

A The controlling grade is fifteen miles of 1.32 grade ascending northward. There

are various rolling grades that run up to seven-tenths of one per cent in short stretches.

Q What grade is this fifteen miles?

A 1.32.

Q 1.32?

A Per cent.

Q That is about fifteen miles:

A Fifteen miles.

Q And it is the highest grade you have?

A Yes sir.

Q Then, I think you informed the Commission -- I do not quite remember -- that you have radio equipment between the engine and the caboose?

A Yes sir.

Q On your freight trains?

A Yes sir.

Q And that is used in switching moves, is it?

A It is not handy to be used in switching moves, no sir. It is used in conversation between the two ends of the train but of course switching moves are usually some short forward portion of the train.

Q What is this walkie-talkie you mentioned?

A It is a portable radio phone that a man can carry and talk to the engineman.

Q And the conductor has that in the caboose?

A Most of our crews, where it is the case that they have any particular amount of

work to do with long cuts of cars, we provide it, yes sir.

Q You provide it for them?

A Yes sir.

Q To assist in the switching moves?

A Yes sir.

Q I was interested in your statement about your safety record, that your operating record is good but there was something else that was not so good. I think you said employee accidents but I could not quite catch it.

A I mentioned our record of personal injuries to employees generally was not particularly good.

Q Personal injuries arising, happening where?

A Oh, trackmen, mechanical men, all of our entire group.

Q Arising out of their work or out of contact with trains?

A Out of their work entirely.

Q How is the record of these people being hurt on the track by moving engines or cars?

A The record is good there.

Q The record is good there?

A Yes sir.

Q Do you not also have some kind of radio connection between your dispatcher and the train crew?

A There is a radio in the dispatcher's office. Its range is approximately thirty miles. It is not used in any way with the train dispatching but within that limit, why he can contact the crew or they can contact him. Our train order office at Oreway, which is roughly the half-way point, and our train order office at the mines also are provided with radios and the crews can call them when they are within twenty-five or thirty miles or they can call the crews.

Q You have three radio stations, as it were?

A Yes. They cannot get each other but it gives the trains an opportunity to contact the terminals and vice versa within that range.

Q Within a twenty-five to thirty mile range of each one of the three stations, Seven Islands, Oreway and Shefferville?

A Yes sir.

--

--

--

Q. You informed the Commission that there is only one what you could call a public crossing which is at Seven Islands. Are there any private roads at all?

A. Yes, there are three on the line, three private crossings.

Q. From quarries and things of that kind?

A. No, one of them services the Javelin people that are Mile 225 and one at Silver, the mines end of the railway. That is for use there and one for a little lumbering concern that is just 16 miles from Seven Islands. Their crossing is 20 miles from Seven Islands.

Q. Your yard crews are not employed or the yard crews, I should say, are not employed by the railway at all, are they?

A. No, they do not work for the railway.

Q. They work for the iron ore company?

A. That is right.

Q. And does the iron ore company have engineers as well or not?

A. Oh yes.

THE CHAIRMAN: I didn't hear that question.

MR. LEWIS: Do they have engineers?

BY MR. LEWIS:

Q. And ground crews?

A. Yes sir.

Q. And is the service in the Seven Islands

and the Shefferville yard, the work there, done by the iron ore employees?

A. At Seven Islands, yes. The mine area is not at Shefferville. Shefferville is on a spur three miles off the track that goes to the mine area and our road crosses it on switching. There is nothing at Shefferville.

Q. What about Silver then?

A. Silver is done by the iron ore company crews.

Q. I have been told that you just bring the train into the yard and then they take over?

A. That is right.

Q. And iron ore employees take over for the yard work?

A. Yes.

THE CHAIRMAN: Take over with the locomotive that has brought the train?

BY MR. LEWIS:

Q. With the locomotive that has brought the train or their own yard engine?

A. No, with their own assigned power.

Q. The power, you informed the Commission, that the railway owned that did not include the yard engines that the iron ore company has?

A. I don't remember stating anything about ownership.

Q. Well, did it, the list of motive power that you gave us?

A. That was all of the motive power, yes sir.

Q. Including the yard engines of the iron ore company?

A. Yes, I mentioned all of the power.

Q. You mentioned all of the power?

A. Yes.

Q. So the two yard diesels, for example, they would be iron ore company diesels?

A. No, they are all in one power pool but due to their type they do not fit in with the other power for use on the roads so their use is restricted to the terminal and ordinarily those two small units are worked together as one. They are worked in tandem.

Q. They are coupled together?

A. Yes sir.

BY HON. MR. McLAURIN:

Q. Have you got a telephone line along the whole length of the railway?

A. Yes sir.

Q. Using a Morse code or telephone?

A. We have no telegraph. We have teletype at both ends and at Oreway and a telephone station.

BY MR. LEWIS:

Q. Mr. Bybee, you said you had not had a

great trouble with protective devices
applying on your railway?

A. No sir, we have not had.

Q. Are they all reported every time a
protective device applies? Is there
some record made by somebody?

A. Oh yes, we keep a record of that. Engine-
men are required to make a record and we
carry a log book in each unit and in the
operating unit the engineman each trip
records any exceptions that are taken
and he fills out a work order form when
he arrives at his terminal.

Q. Is this branch of work under your
supervision, the mechanical and electrical
part of it?

A. No sir, not directly.

Q. Then the work reports would not normally
come to your attention?

A. That is right, they don't.

Q. Your statement that you have not had a
great deal of trouble would be just a
general impression, is that right?

A. No sir, any delay caused comes first
to my attention.

Q. If there is a delay on the train?

A. Yes sir.

Q. But if the device was reset while the
train was in motion so that there was
not any delay you would not know about it?

- A. That is quite likely.
- Q. What do you mean then when you said you have not had a great deal of trouble with these devices? Was your evidence not that there have not been many delays as a result of defects, that is what you meant?
- A. Yes sir. Actually, any trouble with the power immediately results in delay.
- Q. Of some sort?
- A. Yes sir.
- Q. Do all your trains run to time-table?
- A. No, none of them run by time-table. We have no time-table schedules as such.
- Q. I notice, Mr. Bybee -- just let me ask you first: I suppose you know about the order of the Board of Transport Commissioners regarding your railway issued on the 2nd day of June, 1955?
- A. I am not sure that I do.
- Q. Well, may I read it to you? It states:
- "That the applicant company
(which is your company) be and
it is hereby authorized to
carry traffic over its line of
railway from Seven Islands in
the Province of Quebec at
mileage 3.261 Wacuna sub-
division to Shefferville in
the Province of Quebec, mileage
356.498 Knob Lake sub-division

in the Province of Quebec and Newfoundland until such time as the construction of the railway is completed."

And then the second paragraph states that:

"No engine, car or train shall pass over the said line of railway at speeds exceeding those shown on Order No. 2 of Construction Time-table No. 2 dated May 1, 1955 on file with the Board under file No.45051.15"

- A. Yes, I have seen that.
- Q. What is that speed limit that is set down for you?
- A. The speed limit has not been changed. However, this is the next time-table in order. Shall I hand it to you?
- Q. You go ahead and tell me what is in it. What is the speed limit?
- A. Maximum speed on straight track for express trains 60 miles per hour, freight 50 miles per hour, ore 40 miles per hour. Then there are various speed restrictions on curvature and one thing and another.
- Q. So that your maximum speed would be ore freight trains 40 miles ...
- A. For loaded trains, yes.

BY THE CHAIRMAN:

Q. That is at the present time?

A. No sir.

Q. You are giving these speeds under the order that you have just been referred to?

A. Yes, they are the speeds that are authorized.

Q. You say that that situation has been changed?

A. No sir, we have never attained that maximum speed so far. That is the speed that was authorized by the Board order.

BY HON MR. McLAURIN:

Q. That is the ceiling that applies?

A. Yes.

BY MR. LEWIS:

Q. It still applies as the speed limit?

A. Yes sir.

Q. What you are saying is that you do not usually get up to the maximum speed?

A. No sir, to date we have operated loaded ore trains at 30 miles an hour and the empties at 40 miles per hour.

BY THE CHAIRMAN:

Q. What about your freight and passenger trains?

- A. The freight trains at 40 miles an hour. We let the express trains run up to 60 miles an hour.

BY MR. LEWIS:

- Q. I was also curious, Mr. Bybee, "until such time as the construction of the railway has been completed". Hasn't it been completed? Have you got some other order that has superceded it?
- A. No sir, our time-table is still the construction time-table.
- Q. Still the construction time-table -- that has not been advanced?
- A. No sir.
- Q. You said that you didn't see any particular difference in the railway, the Quebec North Shore and the Union Pacific. What exactly did you mean by that?
- A. The operation of our railway, the Quebec North Shore and Labrador Railway is practically the same as the operation of any other railway that I have been on.
- Q. You mean that there are tracks and engines and cars?
- A. That is just about what it amounts to, yes.
- Q. But you have got 356 miles of railway line from Seven Islands to Shefferville

with no other railways in the vicinity or diamonds crossing or anything like that?

A. We do not have any connection with any other railway.

Q. Is that the position with the Union Pacific on the Idaho Division?

A. Well, the Idaho Division at two ends connects with other railways.

Q. And you operate your Quebec North Shore Railway only, you said, between April and November except for the express and ordinary freight trains, isn't that right?

A. Yes sir, that is right.

Q. About a little over six months of the year?

A. Yes sir.

Q. You do not operate any other part of the year such as the severe weather?

A. We do not operate ore trains.

Q. That is the only thing you operate then, express trains and freight trains?

A. Yes sir.

Q. How many of them a week during the winter months?

A. We operate the express train twice a week the year round.

Q. Twice a week up and twice a week down?

A. Yes sir.

Q. How many freight trains from the middle of November to April?

A. It varies some but it would average one every five or six days.

Q. Roughly a little more than one a week?

A. Yes sir.

Q. So that between the middle of November until April you would^{have} all together five trains a week, that is two going up and two coming down and one going up and coming down?

A. Yes.

. That would be six roughly in the entire week?

A. Occasionally we have to operate a snow plough or a work train or something of that nature. There is a little traffic over it.

Q. Your men work very long hours, your employees, do they?

A. No sir, they do not.

Q. How many hours do they work on one tour I am talking about?

A. The lower end of the railway from between Oreway and Seven Islands the crews' average time on duty would be about ten hours and the other half less than eight hours.

Q. On duty?

A. Yes sir.

Q And they make, you stated, about 6,000 miles?

A 6,000 miles per month, yes sir.

Q We will say the northern half, that is, a stretch of about 170 miles?

A Yes.

Q Am I right that they would have to make thirty days a month to make your 6,000 miles?

A They would have to make approximately forty trips a month, forty tours of duty in thirty days approximately.

Q They would have to make forty tours of duty in thirty days of the month in order to make the 6,000 miles?

A Yes.

Q You don't think those are long hours?

A No, it will run quite a lot less than twelve hours a day.

Q And you think if it is less than twelve hours it is not long hours?

A Generally I think so, yes.

Q And does that explain a case which I am instructed you had before the Board of Railway Adjustment No. 1 last year in connection with a conductor by the name of Mr. L.J. Morin? Do you remember that?

A Yes, I remember that. No, that would not explain that. That was not during the ore season.

Q But as I understand the facts (correct me if I am wrong) you disciplined this man for booking rest after having been on duty fifteen hours and thirty-five minutes, is that right?

A Actually, I did not come here prepared to argue or discuss that particular case but that is not right. He was not disciplined for booking rest.

Q What was he disciplined for?

A Failure to comply with instructions that were properly issued.

Q Did they not have to do with this booking rest after fifteen hours and thirty-five minutes?

A No sir, not directly.

Q Not directly?

A Not directly at all.

Q In what way did it have to do with that?

A Well, from the man's point of view it eventually developed that he considered that it did. From my point of view it did not. He had overtime he was instructed to do before he had reached the point where he booked rest. There was no argument or misunderstanding about the requirement of booking rest itself.

Q And that was not the issue before the Board of Adjustment?

A No sir.

Q The booking of the rest after fifteen hours and thirty-five minutes?

A No, it was never an issue with our company nor with me.

Q I am asking you if that was or was not the point that was argued before the Canadian Board of Adjustment last year?

A Yes sir, it was argued.

Q It was argued?

A The whole case was argued there.

Q Including the booking rest after fifteen hours and thirty-five minutes?

A That was argued too.

Q You were there representing the company?

A Yes.

Q And didn't you argue that you did not have to book rest after fifteen hours and thirty-five minutes?

A Definitely not.

Q You agree he had a right to do so, do you?

A Yes sir. There never was any misunderstanding about the rest rule that I am aware of.

Q One other question. Mr. Sinclair asked you whether you were authorized to speak on behalf of the Quebec, North Shore Railway by the manager and you said yes, is that right?

A Yes, that is right.

Q What do you mean speak on behalf of the

railway?

A Well, I am here as the superintendent of that railway subpoenaed as a witness for this hearing and to that extent I represent the Quebec, North Shore and Labrador Railway and my general manager has permitted and authorized me to be here and testify. There was nothing else meant at all.

Q Pardon?

A There was nothing else meant at all.

Q All you mean is that your superiors gave you permission to come here and testify as to your knowledge of the operations of the Quebec, North Shore Railway?

A That is correct, yes sir.

Q I suppose if you were subpoenaed you would have to come here whether they authorized you or not?

A I think so.

Q But you got the authorization anyway?

A Yes sir.

THE CHAIRMAN: Subject to conduct money.

BY MR. LEWIS:

Q Now with the Union Pacific, Mr. Bybee, by the time the diesel power came into operation on that railway are my notes right you had become a supervisory person?

A Yes sir, I became a supervisory person on a different section of the railway from

where I had been working in train service.

Q Was there any diesel power in the section where you had been working on train service?

A None at all.

Q Pardon?

A There had not been any.

Q So that you had no experience whatever in connection with diesels while you were in train service?

A That is right, yes sir.

Q Then you became a travelling conductor in 1941?

A Yes sir.

Q Then you were assistant superintendent of the Idaho division, were you?

A I was for -- I don't believe it was mentioned there, from April of 1944 until October of 1947.

Q You said something about assistant superintendent?

A Then after I was superintendent there I was assistant superintendent of the California division, not in that same area.

Q You were superintendent in the Idaho division for a while and then you went down to the California division as assistant superintendent?

A And then came here.

Q And then came here from California?

A Yes.

Q As superintendent of your railway --
I understand you are on leave of absence
from the Union Pacific?

A That is right.

Q Mr. Sinclair called it "on loan" but I
suppose it means leave of absence?

A Yes sir. Actually the leave of absence
is granted on a loan basis. That is the
way it was made out.

Q As superintendent on the Union Pacific
would you be in the operating end or what?
What exactly was the arrangement there?

A Entirely in the operating end.

Q And would you there have had much ex-
perience with the defects and operations
of the diesels as mechanical and electrical
units?

A Yes sir, the information generally was all
to me and through my office.

Q You really did not have much yard experi-
ence in your service with the Union Pacific?

A Not a great deal, no sir.

Q You were a yardmaster at some little yard?

A A small yard for a short time and -- oh,
perhaps altogether I worked a year in
yard service. That was during the time
I was laid off account force reduction on
the road.

Q When you were a trainman with the Union

Pacific do you recall ever receiving a signal from the fireman?

A Did I hear you right? No, sir, I got no operating signals from the fireman.

Q When you were a trainman -- you did switching when you were a trainman?

A Yes sir.

Q Do you ever remember giving a signal to the fireman? I beg your pardon, no wonder you didn't understand it. Do you ever remember giving signals to the fireman?

A Oh yes.

Q But your statement to the Commission is that every time you did it was because you were a little lazy, is that it?

A No sir, I didn't say that although I am a little lazy.

Q You are just normally lazy?

A I think so.

Q Then, when you gave signals to the fireman, Mr. Bybee, was there any justification for it?

A I would have a difficult time remembering a particular instance but inasmuch as he were there and looking at me I would think it was justified, yes.

Q I suppose it depends on which side of the labour-management lane you sit as to whether you consider it justified or not, is that it?

A Not necessarily so.

Q So you think it was justified?

A Yes sir.

Q It was pointed out to me in my note here-- and I should have thought of it myself -- on this controlling grade you had, I think of 1.32, you said that was northward?

A Yes sir.

Q That would be when you pulled your empties up?

A That is right.

Q When you had your train loaded you would be going down-grade?

A Yes sir.

Q Just to get the record clear (I don't think it is relevant, I appreciate that) but Mr. Sinclair asked you whether the B. of L.F. and E. had attempted to organize your employees and you said yes. There were not any helpers at that time?

A No, there were not.

Q There never have been on the Quebec and North Shore?

A No.

Q There is a little competition between the two brotherhoods for the engineers?

A That is right, sir.

Q I was going to ask you when you worked for the Union Pacific they did have firemen

helpers in freight service?

A I said firemen on all trains, yes sir.

Q And in yard service?

A Yes sir.

Q And you said, I think you informed the commission, that you had reached a decision pretty early that they were not needed?

A Yes sir, that is right.

Q Did you yourself take any action as assistant superintendent or superintendent with regard to that?

A No sir, no constructive action.

Q You did not try to get the firemen removed when you were in those supervisory positions?

A No sir.

Q Did you advise your superiors of your opinion at that time?

A Some of my superiors, yes.

Q You did express yourself to them?

A Yes sir.

Q Did you do any of it in writing?

HON. MR. McLAURIN: He probably did not write Governor Harriman. You know the significance of that -- Harriman is the owner of it.

THE WITNESS: No, I don't believe I ever did write anything on that subject.

MR. LEWIS: That is all.

THE CHAIRMAN: Any re-examination?

MR. SINCLAIR: No re-examination.

THE CHAIRMAN: Very well, tomorrow morning
at ten o'clock.

-- At 3:55 p.m. the Commission adjourned
until 10 a.m., Friday, April 12, 1957.

BINDING SECT. APR 21 1972

